A BIBLIOGRAPHICAL SURVEY OF THE EDUCATION FOR GIFTED CHILDREN

by

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FACULTY OF EDUCATION
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A BIBLIOGRAPHICAL SURVEY OF THE EDUCATION FOR GIFTED CHILDREN

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SYNOPSIS

This thesis attempts to review and interpret existing theories, practices, and research relating to the education of gifted children. It is an outgrowth of many years of interest, reading, and discussion. While conclusions must still be regarded as tentative research on intelligence and motivation and on individual differences is gradually clarifying the issues involved in the problem of educating the gifted.

This review proposes an outline and evaluation of current evidence. Much of its source material is technical and widely scattered in monographs, publications, professional magazines, and committee reports. The writer has attempted to assemble this material and to present it in a practical and usable form with the hope that educators may gain increased understanding of the needs and problems of highly intelligent children.

The study is concerned with general intellectual giftedness as distinguished from special talents, and with general principles of teaching rather than with specific procedures. Attention is directed to four special areas of the subject. In the first part there has been an attempt to emphasize the public concern, both present and past, for the gifted, and to indicate current opinion relating to their educational needs. The observations regarding identification should have appeal to all teachers and principals. The second part treats in some detail, opinion and evidence pertaining to acceleration, enrichment, and ability grouping. The points of view expressed have distinct implications for educational planning as indicated in the third section where a description is given of practices in schools and communities on this continent and in the Old

World. Here the aim has been to present a comprehensive picture of existing programs and curricula so that the reader may note the essential features of each. Although some evaluation is submitted, a final definite statement of the truth or falsity of the theories involved in these programs and practices must await the verdict of time. Many of them appear commendable, and, if one wishes to participate in the forward movement and keep pace with the progress of thought concerning education of the gifted, consideration of present proposals should be beneficial. The inclusion of recommendations in part four is considered desirable since educators must accept the challenge of providing adequate service for all children. Past failures to present a positive, energetic program have resulted in great loss in trained manpower and have threatened to weaken the basic social structure of democracy. The extensive bibliographic references should be of value to educators, advanced students, and research workers.

The review will not arouse the same interest in all readers. Some of the chapters are particularly addressed to teachers and administrators, while others should have a special appeal to those interested in research. It is earnestly desired that this thesis will bring to the attention of the public, parents, students, and professional educators, the magnitude of the problem and the urgent need for money, energy, research, and expanded service programs for intellectually gifted children.

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PART I

THE NATURE OF GIFTED CHILDREN

CHAPTER I

PUBLIC CONCERN FOR THE GIFTED

The education of gifted children is rapidly becoming a matter of national concern. At no time in history has the demand for highly trained scientists, engineers, technical experts, and members of the learned professions been more urgent. Still more disturbing is the fact that every advance in science multiplies the complexities of life, thus increasing the demand for trained intelligence to control, direct, and utilize scientific progress in the service of mankind.

This is not a new situation. Plato and his followers advocated the education of the highly endowed for leadership in the state. The Romans, too, at government expense, selected and trained gifted youths for leadership in government and in war. It is reported that Sulieman[1] selected for special education the most intelligent youth of the Ottoman empire. The Renaissance, with its emphasis upon the revival of learning, placed a high premium upon ability, and it was not uncommon for able and promising young men to enjoy the sponsorship of noble families and the opportunity for

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[1]Merle R. Sumption, Dorothy Norris, and Lewis M. Terman, "Special Education for the Gifted Child," The Education of Exceptional Children, Chapter XIV, Forty-ninth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press,1950, p.278.

more complete development of their talents.

Concern for the education of gifted children declined during the seventeenth and eighteenth centuries when educational philosophy placed emphasis on the similarity of native intelligence.[2] Political writers introduced the democratic concept of the equality of man with little understanding of its relation to intelligence or opportunity. This age of "the common man" underestimated the achievement of its leaders in relation to the potentiality of its masses. The ideas expressed at the time have influenced educational practice even to the present. Jefferson proposed different education for the more able but, generally, special education was considered undemocratic, and interest in the field was limited. The example and work of Galton revived interest.[3] The reality of innate individual differences was demonstrated by studies of feebleminded children, and Binet's work on measurement emphasized the existence of the range of human ability.[4]

Personnel problems in World War I drew attention to existing differences in capacity. Whipple[5] indicated that a nation is destined to perish

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[2]Merle R. Sumption, Three Hundred Gifted Children, New York: World Book Company, 1941, p. 4.

[3]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture, New York: The MacMillan Company, 1926, p. 4.

[4]Catherine C. Miles, "Gifted Children," Manual of Child Psychology, edited by Leonard Carmichael. New York: John Wiley and Sons, 1946, p.887.

[5]Fay Adams and Walker Brown, Teaching the Bright Pupil. New York: Henry Holt and Company, 1930, p. 5.

that fails to provide the best educational opportunities for those who show promise of leadership. Cattell had already insisted that individual differences were a matter of concern and G. Stanley Hall, Professor Thorndike, Goddard, and Terman became interested.[6] Goddard and Kuhlmann published a revision of Binet's 1908 scale and were responsible for its increased use among clinical psychologists.[7] Terman's 1916 Stanford Revision of the Binet tests became widely used in clinical and educational work.[8] His continuing study of fifteen hundred gifted children developed a new interest in the problem.[9] The 1937 Terman and Merrill Revision of the Binet Tests provided a further instrument which proved valuable in the identification of superior ability.

As school enrolments increased the problem of individual differences became more obvious. Though there were wide differences of opinion regarding educational provision for treatment, recognition of the gifted as a group slowly increased. In 1930 the White House Conference[10] on Child Health reported that only about four thousand gifted children were receiving special attention at that time. Nevertheless only a small part of the report was devoted to the education of gifted children. During the ensuing decade

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[6]Frank S. Freeman, Individual Differences. New York: Henry Holt and Company, 1934, p. 21.

[7]Freeman, op. cit., p. 22.

[8]Freeman, op. cit., p. 23.

[9]Miles, op. cit., p. 893.

[10]White House Conference on Child Health and Protection. Special Education: The Handicapped and the Gifted. Report of the Committee on Special Classes, Charles Scott Berry, Chairman. New York: Century Company, 1930.

there was little increase in general interest in the problem. Many educators thought that educating the gifted involved concentration upon the development of techniques for instruction.[11] It was estimated at the conference that there were one and a half million children with an I.Q. rating above 120. According to a study by Heck[12] in 1930 only four cities of population of 10,000 or more had classes for the gifted and only thirty cities out of 762 reported schools or classes for gifted pupils.

The demand for special education for the gifted has steadily increased. Reports of research such as the Stanford studies[13] and the writings of many educators in the forties have created a resurgence of interest in special education. The training of mentally retarded children is for their own welfare, and to the extent that opportunity classes achieve their objectives, the public, though prompted by humanitarian motives, gains indirectly through the lessening of financial obligations for these exceptional children. However society benefits even more directly from the education of the gifted and consequently should concern itself with the full development of its superior human resources.

Edwards[14] points out that education of the gifted must be a social

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[11]Sumption, op. cit., p. 15.

[12]Sumption, op. cit., p. 16.

[13]Miles, op. cit., p. 893.

[14]Newton Edwards, "Education of the Able Students: Social Significance and Goals," Education Digest, Vol. 20, No. 4, December, 1954. (Reprinted from School Review, Vol.LXII,September, 1954, pp. 328-332) p.50.

instrument of public policy so that "flight from decision cannot be justified by the mere faith that all will turn out all right ... Education of the citizen is important as well as education of the individual; ... deliberate, conscious, intelligent direction has come to be the central meaning of our era". Taylor reminds us that:

> ... the way to raise the intellect of the American people is to adapt our educational system to the variety of needs which our people have, to meet them where they are and to raise them to where they might be.[15]

Dr. Dodds of Princeton University states:

> The assertion that to be democratic public education must ignore the gifted would have shocked even the most democratically inclined of the Founding Fathers, including Thomas Jefferson himself.[16]

He goes on to say that educators write and conduct research on individual differences and yet contradict themselves by talking about levelling intellectual capacity in the classroom by various devices calculated to achieve homogeneity. The incorporation in 1946 of the American Association for Gifted Children under the state laws of New York demonstrated public concern over the fact that talented and gifted children were not receiving adequate consideration. The National Education Association also concurred in the growing opinion that the gifted were neglected. Sumption, Martens, Oden, Hollingworth, and Bentley all demanded action. The discussion of the

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[15]Harold Taylor, "Education: For What and for Whom," School and Society. Volume 83; No. 19. February 4, 1956, p. 43.

[16]Harold Dodds, "Does a Man Have the Right to Pay for the Education of His Son," quoted from an address by I. L. Kandel in School and Society, Volume 77, No. 2009, June 20, 1953, p. 396.

question in the 1950 Report of the Educational Policies Commission, the publication of "The Gifted Child" in 1951, the Dael Wolfle report[17] in 1954 by the Commission on Human Resources and Advanced Training, and the Manpower and Education Report[18] are all evidence of the increased public interest and concern about the problems and how best they might be solved. However there is evidence that intellectual resources are not being developed to the maximum extent. The Wolfle Report indicates that one-half of the young people able to do college work actually earn degrees.

The Manpower and Education Report indicates that in recent years the world has benefited greatly from the creative imagination and inventive abilities of a small number of able people. Advances in agricultural science, biology and medicine, psychology and psychiatry, and communication have all contributed to a new level of living. The role of science in the development of communication and transportation, synthetics, and nuclear physics have increased the demand for highly trained and highly intelligent leadership in business and industry.

> The phase of the industrial and scientific revolutions into which we are now passing will require of the labor force a marked upgrading and a high degree of flexibility. It will lay particular stress on the full development of high-level talents.[19]

The general conclusion of the Report is that education of all able talented youth is essential for national security.

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[17] Dael Wolfle Commission, Report on Human Resources and Advanced Training. Office of Education, Washington, D.C. 1954.

[18] Manpower and Education. 1956 Report of the Educational Policies Commission. National Educational Association, Washington, D.C.

[19] Manpower and Education, ibid., p. 25.

The Hope Report[20] in Canada mentions the problem of educating the gifted according to their need and recommends that more research workers be trained. Dr. Sidney Smith,[21] a member of the Commission, writes emphatically upon the urgency of action in this field and quotes Principal Bennett of Victoria College to the effect that there is a lack of challenge to the bright students in the secondary schools. Baker asserts:

> In the resourcefulness of the gifted there is promise for the conservation of human life and of the natural resources of the earth. Society owes itself a duty to conserve all its potential assets. Neglect of the gifted has made them the most severely handicapped of all of the types of exceptional children. The handicaps from which they suffer can be remedied and the rewards to themselves and to society will be amply repaid.[22]

A report of the State Department of Education in Connecticut in 1956 refers to the maximal use of manpower resources when it states:[23]

> Excellence, creativity, inventive powers, superior competence; indeed the special intellectual and the personal talents of all should be developed to the maximum as a matter of sound state and national policy.

Howard F. Fehr[24] notes the alarming need for mathematicians and indicates that teachers, appreciating mathematics as a creative art, should

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[20]Report of the Hope Commission on Education in Ontario. 1955 published by Baptist Johnson, Toronto.

[21]Sidney Smith, "Brains Unlimited," Canadian Education Volume IX, June, 1954, p. 3.

[22]Harry J. Baker. Introduction to Exceptional Children, Revised Edition. Toronto: The Macmillan Company, 1955. p.295.

[23]Education for Gifted Children and Youth: A Guide for Planning Programs; Bulletin No. 77, June, 1956. State Department of Education, Hartford, Connecticut. p.4.

[24]Howard F. Fehr, "The Student Gifted in Mathematics," National Education Association Journal. Vol.43, April, 1954. p.222.

give special training to the gifted. By such effort they would render a tremendous service to the country.

The nation which makes the best use of its human resources maintains the highest standard of living. People with high ability are valuable assets; as creators, writers, philosophers, scientists, and originators of social ideas they assume the responsibility for carrying onward the accumulating knowledge and skills of the human race.

Dr. Harold F. Clark, president of the American Association for Gifted Children in 1950 reported that on the basis of a survey of the resources of fifty-eight countries natural wealth was not the only determinant but that "... the crucial factor in determining the income and wealth of a country is the provision that it makes to capitalize on the ability of its people."[25] Merle Sumption points out that democracy makes high demands on its leaders; and that there is nothing undemocratic about using all our resources for the benefit of society. The difference in the objectives lies in the

> ... greater emphasis placed upon the creative effort, intellectual initiative, critical thinking, social adjustment, social responsibility, and the development of the unselfish qualities of leadership.[26]

Goddard[27] also refers to the advantages to society resulting from developing the potentiality of the gifted. Adams[28] speaks of the levelling tendency

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[25]Miriam Pritchard, "Total School Planning for the Gifted," reprint from Exceptional Children, Volume 18, No. 4,5,6, January, pp. 107-110, 128; February, pp. 143-147; March, pp. 174-180.

[26]Forty-ninth Yearbook, op. cit., p. 278.

[27]Henry H. Goddard, School Training of Gifted Children. New York: World Book Company, 1928.

[28]Adams, op. cit., p. 5.

of democracy and quotes Dewey's view that democracy has been unfair to gifted students, in confusing legal equality with equality of opportunity. Adams goes on to say that leadership in terms of creative thinking is likely to come from those who have been endowed by nature with the more penetrating minds, and that the levelling tendencies of democracy should be counteracted by the development of its intellectual resources. Hollingworth remarks that: "Individuals of surpassing intelligence create national wealth, determine the state of industry, advance science, and make general culture possible."[29]

The Chief Inspector of the Ottawa school system voices the same sentiment:

> ...upon this gifted group Society relies for the preservation and advancement of civilization. They are the people who will become our leaders and if ever there was a time when leaders of the highest calibre and integrity were required, it is now. It is not inconsistent with the ideals of democracy, that special attention be paid to the gifted child. In fact, one of the concepts of democracy, the ideal of equal educational opportunity for all, is not completely served, unless we offer the child of superior mental ability the same opportunity to develop his talents as is given to children of average and below average intelligence.[30]

Leadership usually connotes physical leadership of men as given by executives, generals, and statesmen. But there are leaders in thought, science, and culture who, though isolated from the crowds, give valuable direction to the progress of humanity.

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[29] Hollingworth, op. cit., p. 297.

[30] W. T. MacSkimming, Chief Inspector Ottawa Public School Board, Study on Gifted Children, March 6, 1956, p. 3.

National and industrial pressures have caused educators in America to be concerned about the effectiveness of their programs for rapid learners.

> With the entry of the Communist Chinese in the Korean War came a sudden realization that America's reservoir of protective strength was smaller in numbers of people than that of its enemies. As Americans we realized more than ever before that our national security depends upon an educated citizenry and requires the maximum utilization of all the best brainpower ... A new concept of defence relying more than ever on advanced weapons and machines, has been adopted. Our intricate tools, machines, and weapons require educated and carefully trained personnel.[31]

Various industrial organizations are becoming increasingly concerned regarding manpower shortages and the training of specialists in the field of science. The Thomas Alva Edison Foundation, interested in establishing further cooperation between industry and education, held an Institute with the National Science Teachers' Association in May of 1951 and the conclusion was reached that emphasis on teaching science at elementary and secondary levels should become a major responsibility of State Departments.

A Third Edison Foundation Institute was held in May, 1952 in cooperation with the New York State Department of Education. It was concluded that it is democratic to encourage and give special help to superior students in all subjects because it is from this group that we must expect our future leaders.[32]

Dr. Morris Meister referred to the wide range of abilities among

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[31]Teaching Rapid and Slow Learners in High School. United States Office of Education, Bulletin No. 5, 1954, p. 2.

[32]Report of Third Edison Foundation Institute - May, 1952, p. 4.

students and indicated that Witty, Terman, Wolfle, and others held that only the top third of an age group can be educated for intellectual work. He emphasized that improved educational programs for them would not be preferential and that it is more important that each reach his maximum potentiality than that all should reach some minimum level of achievement.

> The present critical shortage of scientists and engineers, the anticipated demands of a technological age and the state of international tension emphasizes the problem insofar as it relates to the early identification and special educational opportunities for potential scientists and engineers.[33]

The Fourth Edison Foundation Institute[34] in November,1952, reiterated the principles established earlier in the year and made a number of recommendations for greater cooperation between industry and education for the treatment of potential scientists.

Industry in Canada has given financial support for educational efforts, such as the Canadian Education Association research project in 1947-1951 on practical education. The Association has conducted other educational projects through the assistance of the Kellogg Foundation. In September, 1956 Canadian industry sponsored a high-level conference in New Brunswick on Engineering, and Scientific and Industrial Manpower attended by university representatives and industrialists. The Conference led to the formation, by a number of companies, of an Industrial Foundation

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[33]Third Edison Report, ibid., p. 5.

[34]Report of the Fourth Edison Foundation Institute, West Orange, N.J. November,1952.

on education[35] which is expected to concern itself with many of the educational problems of the country.

It is possible that the increase in school enrolments will develop more concern for quantity than for quality, and that the individual will be more and more submerged in the effort toward mass education in the democracy. There does appear to be a concerted effort on the part of many writers to convince the public of the need of quality in education. The statement is attributed to Alfred North Whitehead that: "In the conditions of modern life, the rule is absolute: the race which does not value trained intelligence is doomed."[36] And Gordon Keith Chalmers[37] of Kenyon College adds his dictum to the effect that we need strong schools to do strong work with strong students. William L. Pressly,[38] president of Westminster Schools of Atlanta, Georgia, emphasizes the need of giving boys and girls the most challenging training possible and commends programs of enrichment as a step in the direction of quality in education for leadership.

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[35]Canadian Education Association, Newsletter No. 118. Toronto: February, 1957.

[36]William L. Pressly, "Curricular Enrichment for the Gifted," Educational Leadership. Vol. XIII, No. 4, January, 1956, p. 232.

[37]Ibid., p. 233.

[38]Ibid., pp. 234-235.

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CHAPTER II

HISTORICAL BACKGROUND

Before attendance became compulsory it is likely that only the ablest pupils remained in school and were therefore thought to be average. School programs were planned for such students. Private schools, tutors, and parents provided special education for those children who showed remarkable learning ability. Karl Witte, Macaulay, and John Stuart Mill were educated individually at accelerated rates with much enrichment of content. Lord Kelvin, James Thomson, Grotius, and Bentham were prepared by tutors under flexible educational arrangements which permitted matriculation at very early ages.[1] Hollingworth[2] refers to able men of science whose educational enrichment came through superior private school instruction or through the personal interest of tutors or public school teachers. There is usually a high proportion of superior pupils in private schools.[3]

Compulsory education manifested the need for provision for a total school population with a greater range of ability than had previously been apparent. In 1866, Elizabeth, New Jersey, introduced into its schools a

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[1]Catherine Cox Miles, "Gifted Children," Manual of Child Psychology, edited by Leonard Carmichael. New York: John Wiley and Sons, 1946, p. 932.

[2]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1926, p. 18.

[3]Miles, op. cit., p. 932.

multiple track system which permitted progress in terms of ability; a year later St. Louis, at the suggestion of Superintendent Harris, adopted a system of flexible grading and promotion.[4] In 1891 the Cambridge double track plan permitted the work of six grades to be done in four years. In 1898 Santa Barbara offered three variations of the program in the form of the minimum essentials, the regular course, and an intensively enriched program. San Francisco permitted the gifted to work out assignments under teacher direction and to report individually to the different teachers involved. This flexible plan allowed the superior pupils to proceed at a more rapid rate. In 1900 the Batavia plan was adopted at a school in New York which provided for individual instruction during school time by having a second teacher in the classroom.[5] Multiple tracking, flexible promotion, individualized instruction, and various forms of acceleration were common by the end of the century. The multiple track program was found suitable for providing enrichment without acceleration.[6] In 1901 Worcester, Massachusetts, organized what was probably the first American public school for gifted children. To this "preparatory school" the gifted from all over the city were brought to a special class in grades seven to nine, the basis of admission to which was good health and

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[4]Merle R. Sumption, Three Hundred Gifted Children. New York: World Book Company, 1941, p. 10.

[5]Sumption, Ibid., p. 11.

[6]Merle R. Sumption, Dorothy Norris, and Lewis M. Terman, "Special Education for the Gifted Child," Forty-ninth Yearbook of the National Society for the Study of Education: Part II, edited by Nelson B. Henry, University of Chicago Press, 1950, p. 260.

high academic standing.[7] Other centres followed suit. Acceleration was the common practice until about 1920 when enrichment came into greater favor and special classes were set up for that purpose in various cities. In Los Angeles a special class was established in 1916 and, after four years of experimentation, enrichment was adopted. Admission to the class was based on an I. Q. rating of 125.[8]

Hollingworth's experiment in Manhattan at Public School 165 and Cleveland's establishment of Major Work Classes set a new pattern for enrichment. Thus segregation had begun to appear along with the enrichment and the acceleration policies which still continued.[9] Nevertheless the White House Conference Report in 1930 indicated that less than one per cent of the gifted children in the United States were in special classes.[10] Few additional provisions were made during the thirties although considerable writing on the subject was published by Bentley, Adams and Brown, Carroll, Heck, Garrison, and many others. In 1936 Terman classes were set up in the Speyer School in New York under the direction of Hollingworth. However the United States Office of Education[11] reported for 1935-1936 that the enrolment of gifted children in special classes had decreased by twenty-five per cent since 1930. Controversy continued regarding

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[7]Sumption, op. cit., p. 12.

[8]Sumption, Ibid., p. 13.

[9]Sumption, op. cit., p. 15.

[10]Paul Witty, The Gifted Child. Boston: D.C. Heath and Company,1951, p. 3.

[11]Miles, op. cit., p. 934.

the problems of personal adjustment, democratic objectives, and the added advantages of enrichment in special classes. However, notable contributions were made through the scientific studies concerning the nature and needs of the gifted. During the last war the entire problem was neglected save at the college level where it was concluded that essential objectives of education could be accomplished in less time than the conventional time allowance.[12] Terman stated that gifted children usually benefited from moderate acceleration particularly if they were entering professions.[13] Terman and Oden's[14] publication in 1947, Hollingworth's[15] in 1942, and Miles's[16] article in 1946, along with Martin's[17] booklet on gifted children have created another period in the development of the study of superior children- that of dissemination of knowledge about them in answer to the growing public interest.

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[12]Forty-ninth Yearbook, op. cit., p. 260.

[13]Lewis M. Terman and Melita H. Oden, "The Stanford Studies of the Gifted," The Gifted Child. Edited by Paul Witty. Boston: D.C. Heath and Company, 1951, p. 44.

[14]Lewis M. Terman and Melita H. Oden, "The Gifted Child Grows Up," Genetic Studies of Genius, Volume IV. Stanford: Stanford University Press, 1947.

[15]Leta S. Hollingworth. Children Above 180 I.Q. New York: World Book Company, 1942.

[16]Miles, op. cit.

[17]Elise H. Martens, Curriculum Adjustments for Gifted Children, United States Office of Education Bulletin No. 1, 1946.

A review of the literature reveals scattered attempts, during the past ninety years, to give special attention to the gifted. There has been valuable experimentation with flexible promotion, individualized instruction, multiple tracking, and enrichment procedures. Tremendous encouragement has been given to educators by the genetic studies of Terman and his his associates over a twenty-five year period. This quantitative and descriptive analysis of the nature of giftedness has been further supplemented by the experimental studies of Hollingworth and others. Lastly, there is considerable information on school programs for the gifted based on the experience of the last half century.

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CHAPTER III

DEFINITION AND IDENTIFICATION

Since Galton's early studies of individual differences the selection of the gifted has achieved some degree of scientific procedure. Binet, Terman, and others have developed accepted instruments of measurement that are widely used for the identification of superior mentality.[1]

Binet's tests for identification involved auto-criticism, ability to take directions and to adapt behavior in a given direction.[2] Witmer[3] refers to the power to deal with the novel situation; Ebbinhaus[4] speaks of intelligence as relational thinking; Spearman[5] emphasized the recognition of relationships in a variety of situations. He speaks of intelligence as a capacity for learning or as a force which produces adequate performance, right solutions, and correct learning, or, as Thorndike[6] says "true" in the sense of being valuable for prediction.

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[1]Frank S. Freeman, Individual Differences. New York: Henry Holt and Company, 1934, pp. 22-23.

[2]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1926, p. 26.

[3]Hollingworth, Ibid., p. 26.

[4]Hollingworth, Ibid., p. 27.

[5]Hollingworth, Ibid., p. 27.

[6]Hollingworth, Ibid., p. 27.

Intelligence implies power to obtain what the organism desires[7] although of course what is desired depends on the character of the individual.

Witty refers to the definition of the gifted child as "one whose performance in a potentially valuable line of human activity is consistently remarkable."[8] Leta Hollingworth believes that the "power to achieve literacy and to deal with its abstract knowledge may be accepted as a definition of the intellectually gifted since it is possible to measure these objectively.[9] Russel states that "the gifted child is one who is intellectually superior and creative; has high potential aptitudes and whose performance is consistently outstanding."[10] The Educational Policies Commission designated as highly gifted the top one per cent and the moderately gifted as the top ten per cent.[11] But the top one per cent is usually regarded as a dividing line for the gifted which means that the I.Q. rating is about 137. Moderately gifted are classified as those between 120 and 137.

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[7]Frank N. Freeman, "The Meaning of Intelligence," Intelligence: Its Nature and Nurture. Thirty-ninth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Company, 1940, p. 16.

[8]Paul Witty, "Helping the Gifted Child," Chicago: Science Research Associates, Inc., 1952, p. 5.

[9]Florence Brumbaugh, "Intellectually Gifted Children," Special Education for the Exceptional, Volume III. Edited by Merle E. Frampton and Elena D. Gall. Boston: Porter Sargent Publisher, 1956, p. 2.

[10]Donald W. Russel, "A Functional Approach to the Study of the Gifted," Elementary School Journal, Vol. 57, No. 1. October, 1956, p. 46.

[11]Educational Policies Commission, Education of the Gifted. National Education Association, Washington, 1950, p. 86.

[12]Ibid., p. 43.

The New York University's Clinic for the Social Adjustment of the Gifted defines a gifted child as "one whose intelligence quotient is 130 or above, the highest one per cent of the child population in intelligence."[13] Hollingworth refers, as does Terman, to the upper one per cent of the juvenile population as being the intellectually gifted with an I.Q. rating of 130 or above.[14] Baker[15] also sets the lower limit of giftedness at 130 I.Q. Norris and Danielson think it should be at 125, while Goddard indicates 120 as the practice at Cleveland.[16] Bentley[17] spoke of superior children as those over 110 I.Q. who possessed other factors such as high aptitude for school work, and special talents for contribution to society. J. A. Long,[18] Director of the Department of Educational Research in the Ontario College of Education, said the term gifted applies to those whose superiority makes it difficult to give them a challenging program of

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[13]Zorbaugh, Harvey W. and Rhea K. Boardman, "Salvaging our Gifted Children, Journal of Educational Sociology, Vol. 10, No. 2, Oct.1936,p.101.

[14]Hollingworth, op. cit., p. 43.

[15]Harry J. Baker, Introduction to Exceptional Children, Revised edition, Toronto: The Macmillan Company, 1953, p. 285.

[16]Walter S. Monroe, Editor, Encyclopedia of Educational Research, Revised edition. Prepared under the auspices of the American Educational Research Association. New York: The Macmillan Company, 1950, p. 505.

[17]John Edward Bentley, Superior Children. New York: W. W. Norton and Company, Inc., 1937, p. 19.

[18]J. A. Long, "The Problem of the Gifted Child," Canadian Education, Vol. VIII, No. 2, March, 1953, p. 17.

studies in regular classes conducted in a routine fashion. Carroll[19] and Martens emphasized creative and abstract interests in the production of work of superior quality.

> The "gifted child" ... is the one who has an exceptional intelligence which finds expression in high levels of creative thinking and reasoning ... only one (out of 100) has an I.Q. of 130 or above. At this point we have a child who is exceptionally gifted in his mental endowment and of whom great achievement should be expected.[20]

Bristov[21] refers to the various factors entering into the definition of giftedness and reiterates the statement that many authorities limit giftedness to the top one per cent while others, recognizing various degrees of intelligence, state that ten out of every hundred might qualify for the gifted category if they were given adequate opportunities for the development of their special abilities.

Martens[22] insists that the whole organism must be considered as a "closely knit interaction of functions that make up the pattern of organic life." An organic concept of intelligence suggests that it is directly

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[19]Encyclopedia of Educational Research, op. cit., p. 505.

[20]Elise H. Martens, Education of Exceptional Children, Part II, Office of Education Pamphlet No. 41. Washington, 1953, p. 8.

[21]William H. Bristov and others, "Identifying Gifted Children," The Gifted Child. Edited by Paul Witty. Boston: D.C. Heath and Company, 1951, p.11.

[22]Elise H. Martens, Curricular Adjustments for Gifted Children, Bulletin 1946, No. 1. U. S. Department of Health Education and Welfare, Office of Education, Washington, p. 7.

related to the amount of cerebral cortex and damage thereto affects the functioning of intellectual capacity. The Toronto study[23] indicates that one cannot consider capacity without considering functioning, that is, the manner in which the student makes use of his native ability. Freeman[24] speaks of a social concept of intelligence in which social elements influence behavior in an intelligent manner in the psychological sense. The ability to deal effectively with immediate problems through application of social learnings such as language, scientific principles, and symbols indicates functional behavior. Freeman thinks intelligence should be defined in psychological or behavioristic terms and that organic and social concepts are "but factors in intelligence rather than intelligence itself."[25] Analysis of behavior involves factors or components which may contribute to differences in effective performance of different people. The chief purpose of a factor analysis method such as Thurstone's is to account for the primary factors in a given number of tests or variables.[26] A Spearman analysis is designed to produce a general factor and one or more specific factors. The concern seems to be with functional intelligence

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[23]Report on the Study of Thirty-two Gifted Students by The Research Committee of The Association of Heads of Guidance Departments, Toronto Secondary Schools, December 8, 1955, p. 46.

[24]Freeman, op. cit., p. 13

[25]Freeman, Ibid, p. 19.

[26]William C. Cottle, "Interest and Personality Inventories," The Personnel and Guidance Journal, Vol. XXXIII, No. 3, p. 263.

which indicates a general capacity of an individual to adjust his thinking consciously to new requirements or adapt himself with mental alertness to new environmental situations for the attainment of some end. Wechsler defines intelligence as "the aggregate or global capacity of the individual to think rationally and to deal effectively with his environment."[27] He suggests also that intelligence characterizes behavior as a whole and that it is aggregate because it "is composed of elements or abilities, which, though not entirely independent, are qualitatively differentiable."[28] He states that "Spearman's generalized proof of the two-factor theory of human abilities constitutes one of the great discoveries of psychology," but he thinks that the common factor "g" should include more than a "recurrent mathematical quantity that can be extricated from the tests by special correlational methods."[29] He asserts that the general factor alone is not sufficient to explain the total correlational variance which exists between the tests to measure intelligence. Reference is made to Alexander's findings indicating that there are other broad factors or "functional unities" correlated with one another.[30] Besides that, there are personality elements or non-intellective factors which contribute to the intercorrelational variance still unaccounted for and which are a

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[27]David Wechsler, The Measurement of Adult Intelligence, Third edition. Baltimore: The Williams and Wilkins Company, 1944, p. 3.

[28]Wechsler, ibid., p. 7.

[29]Wechsler, ibid., p. 9.

[30]Wechsler, ibid., p. 10.

part of general intelligence. Intelligence is not merely the sum of intellectual abilities. However Kelley states that "the independence of mental traits is such that it is possible to go far along in one line without commensurate progress along other lines, provided the 'lines' are such as tax fairly unitary functions."[31]

Parkyn indicates there is a tendency to think that high intelligence manifests itself in many ways and the underlying assumption is that general intelligence is a single capacity equally important in all branches of learning.

> The most acceptable modern view on the nature of intelligence is, however, that it manifests itself in practice as a composite of many abilities, each of which is more or less correlated with the others, though each is to some degree independent. The level in the general factor of a person's measurable intelligence is in practice an average abstracted from a group of abilities varying more or less above and below their own average.[32]

This multi-factor idea of intelligence rather than a uni-factor view indicates a reason why children with high I.Q. ratings are sometimes surpassed in scholastic achievement by children whose general intelligence is lower.

Witty[33] cited biological proof of the total organism as an integrated agent in which physical, mental, and emotional traits operate in

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[31]Truman L. Kelley, Crossroads in the Mind of Man. Stanford: Stanford University Press, 1928, p. 230.

[32]C.W. Parkyn, "Children of High Intelligence," Educational Research Series, No. 30: New Zealand Council of Educational Research. Aukland: Whitcomb and Tombs Ltd., 1948, p. 92.

[33]Encyclopedia, op. cit., p. 508.

combinations which cannot be measured separately. The Encyclopedia of Educational Research carries this statement:

> Indications are that no known scheme is infallible. No trait that has been investigated is invariably characteristic of gifted children. Since an I.Q. test measures only ability to learn it fails to picture all mental qualities; a child failing to make a large body of information function creatively may achieve a high score on an I.Q. test.[34]

In the Introduction of Stedman's book Terman writes:

> ...there is a widespread belief that apparently the gifted child is merely precocious and usually pathologically so.... Scientific studies show that gifted children are superior to unselected children in physical and non-intellectual mental traits as well as in intelligence, and that they carry this advantage into adult life.[35]

Precocity must not be confused with giftedness; it is usually a highly developed talent in a special area, and often, as though cooked too soon, reaches its end too fast.[36] Giftedness implies that continued growth is maintained. Garrison refers to Terman's statement that intellectual precocity is not in itself an indication of anti-social, negative, or undesirable personality. Normality is dominant and follow-up studies have indicated that the gifted children were 'different' because they "knew more" and were "more mature" and not because they revealed personality trait deviations in their behavior.[37]

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[34] Encyclopedia, Ibid., p. 508.

[35] Lulu M. Stedman, Education of gifted Children, edited by Lewis M. Terman, Measurement and Adjustment Series. Chicago: World Book Company, 1924, p. vii.

[36] Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1926, p. 162.

[37] Karl C. Garrison, Psychology of Exceptional Children. Revised edition; New York: Ronald Press Company, 1950, p. 213.

In his early work Terman set as a lower limit for giftedness an I.Q. of 140 on the Stanford Revision of the Binet test for children below eleven years of age and 132 I.Q. for those from thirteen and a half to fourteen years of age.[38] Probably influenced by the writings of Galton he tended to confuse the term 'gifted' with 'genius' which is now considered applicable to those over 180 I.Q.

From a psychological and educational standpoint gifted children are children who possess an exceptional amount of ability which is not the result of training alone. "Gifted" has tended to supplant the term "genius" which has come to refer to people of very high I.Q. who have already won distinction in special fields.

The work of Hollingworth and Lorge in 1936 indicates that those who rated 140 I.Q. on the Stanford-Binet test represented approximately the upper one-fourth of college students.[39] These students should not be considered for a genius classification for it was concluded that to win first class honors 160 I.Q. was a requisite and that students over 180 I.Q. should be regarded as potential geniuses. Hollingworth maintained that time must reveal whether such a person has the industry, perseverence, initiative, and originality to earn the accolade of "genius".

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[38]Garrison, Ibid., p. 203.

[39]Miriam C. Pritchard, "The Contributions of Leta S. Hollingworth to the Study of Gifted Children," The Gifted Child, edited by Paul Witty. Boston: D.C. Heath and Company, 1951, p. 72.

Gifted individuals have high capacity for general achievement; acquired interests govern the manner in which they manifest that capacity. Special interests or talents are not indicative of giftedness[40] but it would appear that if gifted children have developed interest in a special field it should be encouraged.

Talent representing a facility for effective performance along certain lines may be due to special sensory, motor, or mental characteristics. Many practise at great length on one interest to the exclusion of all else, and with ordinary intelligence may become proficient in a special field. Abilities in various fields are not necessarily correlated with general intelligence but, according to Garrison, creative and original talent in music and representative drawing are related to intellectuality. Hollingworth[41] refers to the meagre correlation of special talents with mental superiority. Havighurst defines the gifted as those:

> ... who have special abilities or talents of social value which include high intelligence, creative talent for solutions of new and novel situations, and special abilities in social areas as mechanics, drama, and social organization.[42]

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[40]Jack W. Birch and Earl M. McWilliams, Challenging Gifted Children, Bloomington: Public School Publishing Company, 1955, p. 9.

[41]Hollingworth, op. cit., p. 30.

[42]Robert J. Havighurst, Eugene Stivers, and Robert F. DeHaan, "A Survey of Gifted Children," Supplementary Educational Monographs. No. 83. Chicago: University of Chicago Press, November, 1955, p. 7.

Wooton points out that "... though definitions vary the term (gifted) connotes those who are able and apt to perform at a very high level either because of a general intelligence or because of a special aptitude."[43]

Though talent may refer to capacity for superior achievement in any area of human endeavor superior intelligence implies a variety of superior abilities. Current thinking among educators has become more liberal in the interpretation of giftedness since Terman and Hollingworth utilized mental superiority as the primary criterion for selection of children for studies of giftedness. While Witty suggests it is wise to broaden the definition to include consistently superior performance so that motivation and persistence might be recognized, it is apparent that he considered general high ability to be important but realized that intelligence testing alone did not include all the factors involved. Though gifted refers to outstanding ability in many areas, "educational usage has limited the connotation of gifted to high intellectual endowment."[44]

Identification of gifted children has depended on teachers' judgments, age-grade status, intelligence tests, and achievement as shown in tests, class work, and school records.

Hollingworth[45] indicates that tests show that teachers are poor

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[43]Floyd C. Wooton, "Comparative Education in the World," School and Society, Vol. 83, January 21, 1956, p. 25.

[44]A. Harry Passow and others, "Planning for Talented Youth," Talented Youth Project; Publication 1, Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University, New York,1955, p.6.

[45]Hollingworth, op. cit., p. 47.

judges of gifted pupils; they forget the age factor and the meaning of intelligence and give obedience, attractive personality, and vivacity undue emphasis. Furthermore, gifted children often incur the teachers' displeasure by the nature of their questioning. As they do the regular work of the class with less effort, they temd to become indolent and bored with the routine procedures. Adams[46] notes the fallacy of teachers overlooking the age factor. Scheifele[47] remarks that emotional problems, tension and anxiety may militate against a child's ability to perform intellectually and socially and thus he may remain unidentified by the teacher. Special talent is often mistaken by the teacher for superior mental ability. Terman[48] emphasizes the importance of age-grade status and we are reminded that over-aged pupils doing excellent work with children chronologically younger are incorrectly judged bright. Whipple[49] indicated in a study in 1919, the danger of using teachers' estimates. Carroll[50] also objects to the validity of teachers' evaluations and the Educational Policies Commission[51] comments on the unreliability of their judgments. Havighurst[52] points out that teacher judgments are not

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[46]Adams, op. cit., p. 18.

[47]Marian Scheifele, "The Gifted Child in the Regular Classroom," Bureau of Publications, No. 12. Teachers' College, Columbia University, New York, 1953, pp. 27-28.

[48]Forty-ninth Yearbook, op. cit., p. 263.

[49]Encyclopedia, op. cit., p. 506.

[50]Encyclopedia, Ibid., p. 506.

[51]Educational Policies Commission, op. cit., p. 36.

[52]Havighurst, op. cit., p. 6.

standardized and are of varying reliability. But he does note that teachers become psychologically involved in a program for the gifted when they have aided in the selection of the superior pupils.

However, teachers have the pupils under constant observation and, in many centers, their observations constitute a factor in the selection of the gifted. Roberts[53] states that twenty-one out of twenty-four cities in California, reporting on methods of identification, used, in addition to intelligence tests, instructors' judgments of pupils' interests, talents, and achievements. Baltimore[54] notes that use is made of teachers' evaluations as shown on cumulative records in which interests, achievements, and personal notes are included. Hamilton[55] recommends that the greatest use possible be made of teachers' observations. In Winnipeg, teachers' judgments are frequently responsible for bringing pupils to the attention of guidance officers or testing services of the schools. Handbooks and aids in identification have been provided to teachers in Quincy, Portland, and Connecticut.

Sinclair[56] thinks the gifted should be easily identified as they are interesting and interested and he suggests that mental arithmetic may

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[53]Helen Roberts, "Current Trends in Education," California State Department of Education; Sacramento. October, 1954, p. 5.

[54]Baltimore Bulletin of Education, XXXI, No. 5, January,1954, p.4.

[55]Hamilton Board of Education Report, July 16, 1954, p. 10.

[56]S. B. Sinclair, Backward and Brilliant Children.Toronto: Ryerson Press, 1931, p. 68.

be a means of discovery. Stewart S. Cairns of the University of Illinois says in the Scientific Monthly:

> When it comes to discovering potential scientific talent among high school students a sound mathematical course may well be more effective than any aptitude tests that the ingenuity of man can devise.[57]

The chief criteria for identification of gifted children are intelligence quotients and the achievement scores on objective tests.

> The use of intelligence tests and the quantitative measures derived from them - such as mental age and intelligence quotient - has been demonstrated during the past forty years. Disagreement among psychologists exists regarding what is measured.[58]

Witty states:

> It is evident, then, that an acceptable criterion of giftedness must be sought primarily outside the provinces covered by the intelligence test. For the content of the intelligence test is patently lacking in situations which disclose originality or creativity.
>
> Another criticism of the intelligence test which may help explain its failure in the identification of creative ability lies in its makers' disavowal of concern for the motive or drive which actuates high attainment. The intelligence test neglects the role of feeling and motive and requires only the habituated response of the child to situations which are "set" and which are low in feeling-tone.[59]

Intelligence testing is accepted by some people as trustingly as a doctor's prescription. Insight and ability to perceive meanings are

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[57]Stewart S. Cairns, quoted in Education Digest, Col. XIX, No. 2, October 1953, p. 43.

[58]Educational Policies Commission, op. cit., p. 39.

[59]Garrison, op. cit., p. 204.

indications of intelligence. Coombs[60] notes a "growing trend in psychology toward viewing behavior as a function of perception." Educational methods are often directed at provision of perceptions for the pupils. They are urged to perceive what others think they should. But perceptions vary and have different meanings for people in relation to their goals. It is possible that intelligence is not constant and may even be created as individuals are given opportunities for perception to occur. Taylor[61] says that a child must have problems and materials to be intelligent about and that he must have motivation and interest in solving problems requiring intelligence. He must have experience in the application of intelligence to problems before he can achieve.

There are limitations to the extent to which I. Q. can be changed. It is reported[62] that Hollingworth was unable to increase the learning ability of gifted children of 130 I.Q. to the learning ability of those of 160 I.Q. under a special class program. It is further reported[63] that Hildreth found that the Lincoln School of Teachers' College, "conducted with all the expertness that scientific pedagogy may bring to bear is

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[60] Arthur W. Coombs, "Intelligence Testing from a Perceptual Point of View," Readings for Educational Psychology, edited by William A. Fullagar, Hal G. Lewis, and Carroll F. Cumbee. New York: Thomas Crowell Company, 1956, p. 158.

[61] Harold Taylor, "Education: For What and for Whom," School and Society, Volume 83, No. 39. February 4, 1956, p. 41.

[62] Lewis M. Terman, "Personal Reactions of the Committee," Thirty-ninth Yearbook of the National Society for the Study of Education: Part I; edited by Guy Montrose Whipple. Bloomington, Illinois: Public School Publishing Company, 1940, p. 465.

[63] Ibid, p. 465.

unable to lift above average the I.Q.'s of foster children whom its wealthy and cultured patrons have adopted as their own."

Beaumont and Macomber assert that:

> So-called intelligence tests are often thought of erroneously as being measures of individual capacity for making adequate adjustments in all manner of life situations, ... they do not measure ability irrespective of previous experience.[64]

Some of the newer intelligence tests[65] are based on the fact that psychologists have found there are different abilities to be measured. Instead of giving one over-all intelligence quotient (the I.Q.) these tests present different scores showing how a child rates in the separate abilities which psychologists believe are combined to make up over-all intelligence. Scores are given indicating how well a child does in such areas as verbal ability, space ability, number ability, word fluency, reasoning, memory, and perceptual speed.

Freeman states that:

> The tests of mental ability are still the best index of educability and future intellectual development ... yet they do not reveal the hidden factors which give rise to individual exceptions whose development does not conform to the rule.[66]

The Education Policies Commission recommend the use of intelligence

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[64]Henry Beaumont and Freeman Macomber, Psychological Factors in Education. New York: McGraw-Hill Book Company, 1949, p. 196.

[65]Paul Witty, Helping the Gifted Child. Science Research Associates, Inc., Chicago, Ill. 1952, p. 7.

[66]Frank S. Freeman, op. cit., P. 254.

tests, because they:

> ... have been found to provide data from which the subsequent behavior of an individual can be predicted. The accuracy of such predictions is far from perfect, but it is accurate enough to justify use of intelligence scores along with other criteria in such practical operations as identifying gifted students, in making special provisions for their education and in counselling them... intelligence tests have for practical purposes a useful degree of "operational" validity.[67]

The Commission also states that the different cultural backgrounds, emotional blocks, physical illness, or lack of motivation on the part of pupils may limit the validity of intelligence tests.[68] But it expresses its opinion that intelligence tests have been devised with enough accuracy to serve as one means of identifying intellectually gifted students.[69] Hollingworth[70] stated that: "The only way to identify these gifted children with certainty is to apply reliable and valid intelligence tests. Nothing can take the place of such tests in making a census of the gifted." The Committee making a study of elementary schools in New York set a minimal score of 130 I.Q. It insisted that group tests should not be used until the end of the third year and that then they are only indications of giftedness and many are not identified. The only reliable means of

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[67]Educational Policies Commission, op. cit., p. 40.

[68]Educational Policies Commission, ibid., p. 41.

[69]Educational Policies Commission, ibid., p. 86.

[70]Pritchard, op. cit., p. 50.

identification is the psychological individual test."[71] Garrison[72] also indicates that pre-school and primary grade scores on intelligence tests are not as reliable and valid as those secured from older children. Baltimore[73] uses flexible criteria for identification so that from fifteen to twenty per cent of the pupils are selected for special treatment. Identification in School 53 begins in the kindergarten and is carried on in every grade.[74] Portland[75] begins its identification program at the fifth grade where the pupils are screened by teacher judgments, achievement tests, and the California Test of Mental Maturity. Then the top third are given the Thurstone Primary Mental Abilities Test. While California schools use various criteria, including group tests, for screening, most schools use individual mental tests.[76]

The literature indicates a general opinion that single individual tests are more reliable than group tests and that educational opportunity must not be determined by one mental test.

Ideas vary widely concerning the cut-off line between the gifted and non-gifted. Some cities, for example San Diego, use three sigmas

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[71]Florence S. Beaumont, Report and Recommendations on the Education of the Intellectually Gifted in New York City; Committee of the Division of Elementary Schools; Board of Education of the City of New York,1952,p.3.

[72]Garrison, op. cit., p. 206.

[73]Baltimore Bulletin, op.cit., p. 4.

[74]Ibid., p. 33.

[75]Havighurst, op. cit., p. 88.

[76]Roberts, op. cit., p. 27.

above the mental test mean while others cut off at the highest quartile. In terms of percentage rating this represents from the highest 0.5 per cent in some cities to the highest twenty-five per cent in others.[77] San Diego, for example, makes special provision for those with I.Q. of 148 or higher. In Los Angeles the one factor that remains constant is the I.Q. of 130.[78] Other cities have lower I.Q. cut-off lines. Hildreth[79] states that since 1940 all children admitted to Hunter elementary classes must have an I.Q. of 130 measured by the 1937 revision of the Stanford-Binet test. According to Parkyn,[80] the revised Stanford-Binet (1937) has the advantage of increasing the effectiveness of the testing at the upper end in such a manner as to spread out older children of high intelligence. Garrison[81] recommended the use of analytical profile charts based upon the scores in these tests and the Mental Development tests by Kuhlmann. Many of the centers do not specify the nature of the tests used. A very large number of the schools throughout the States have guidance counsellors or psychologists to assist in the identification of superior pupils.

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[77]Roberts, ibid., p. 5.

[78]Report of the Guidance and Counselling Section; Division of Elementary Education, Progress Report: Special Work Program for Rapid Learners. Los Angeles City School District, 1954-1955, p. 1.

[79]Gertrude H. Hildreth, Florence Brumbaugh, and Frank T. Wilson. Educating Gifted Children at Hunter College Elementary School. New York: Harper and Brothers, 1952, p. 20.

[80]Parkyn, op. cit., p. 37.

[81]Garrison, op. cit., p. 205.

In Canada identification procedures follow the pattern of the United States. The Hope Report[82] classified the gifted as those of 120 I.Q. though recognizing 130 I.Q.[83] as the opinion of the "experts." Upper Canada College uses group and individual intelligence tests and also achievement scores. Winnipeg and Ottawa[84] use a minimum I.Q. score of 130 on the Terman tests. Toronto[85] also requires a minimum of 130 and utilizes both general and specific measures including the Rorschach and the Thematic Apperception Tests. Saskatoon[86] requires a minimum of 130 on the Otis Alpha Tests. British Columbia does not appear to have uniformity but the median I.Q. of those regarded as gifted is 120.[87] In Alberta the concensus of opinion is that the minimum is 130 I.Q. Mr. A.B. Evenson, Assistant Director of Curriculum in Alberta, stated in 1956 that the new aptitude test to be used in Grade IX should be more valid than the General Test previously used.[88]

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[82]Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 74.

[83]Hope Report, ibid., p. 390.

[84]Study on Gifted Children. Ottawa Public School Board, March,1956, p. 11.

[85]Report on the Study of Thirty-two Gifted Students by the Research Committee of The Association of Heads of Guidance Departments, Toronto Secondary Schools, December 8, 1955, p. 6.

[86]Fred Gathercole, from a letter of February 27, 1957.

[87]F. P. Levirs, Report on the Treatment of Gifted Children in the Elementary Schools of British Columbia.

[88]A. B. Evenson, Report to Superintendents' Zone Conference at Edmonton, November, 1956.

There are many forms of objective tests for measuring achievement; sometimes when children do not achieve up to the level indicated by their test results they are discredited by the teachers. School marks are often unreliable although good school marks usually indicate high intelligence and particularly if given by various teachers as indicated on a cumulative record card.

The Iowa Tests for Educational Development[89] (ITED) are comprised of a set of nine tests intended to measure over-all knowledge and a child's ability to use that knowledge. These tests are expected to give an indication of a student's promise in college work. The tests were developed by Dr. Lindquist and are used for discovering superior talent in Iowa schools. Garrison[90] mentions that standardized tests have been devised to measure achievement in language, motor ability, memory, mechanical aptitude, imagination, reasoning, and other areas of achievement. Though they are standardized in terms of average children they are of value in the measurement of the abilities of the superior.

Identification of rapid learners in mathematics and science may be accomplished through the use of standardized tests that measure depth as well as breadth in understanding and knowledge. Tests that merely demand the recollection of formulas do not reveal potential scientists. Quantitative, mechanical and abstract reasoning, spatial visualization, and

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[89] Readers' Digest, October, 1954, p. 179. Quoted from National Parent-Teacher, June, 1954.

[90] Garrison, op. cit., p. 205.

verbal comprehension are important factors in testing.[91] It is not easy for the teacher to seek out single abilities if they exist; but he can identify the student of high general intelligence who seems apt and interested in mathematics and science and has the ability to generalize and apply knowledge to new situations.[92] Achievement tests are devised chiefly, according to Beaumont, to measure factual material without testing ability to detect social and scientific relationships.

A concluding statement suggests: "It is advisable to supplement mental test scores by a careful study of school marks, educational test scores, subjective ratings, and any other pertinent available data."[93]

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[91]Kenneth E. Brown and Philip G. Johnson, "Methods of Identifying and Instructing the Talented in Mathematics and Science," The Education Digest, Vol. XIX, No. 2, October, 1953, p. 40.

[92]Kenneth E. Brown and Philip G. Johnson," Education for the Talented in Mathematics and Science," Bulletin No. 15, Office of Education, Washington, 1952, p. 6.

[93]High School Methods with Superior Students. National Education Association Research Bulletin; September, 1941, p. 159.

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CHAPTER IV

CHARACTERISTICS OF GIFTED CHILDREN

Intellectual Characteristics

The nature of the superiority of gifted children has attracted wide attention. Garrison[1] quoted the observations of Hill regarding characteristics of gifted pupils who show significant ability to learn and to concentrate over prolonged periods. They have quick reaction time and exhibit superiority in speed of reading, thoroughness of comprehension, and in degree of assimilation. They are alert in self-criticism and quick in detecting and generalizing underlying principles. Terman[2] says that gifted children do work of superior quality in all subjects requiring abstract thought. Reading interests and intelligence go hand in hand. Original and creative ability, capacity for logical thinking, active curiosity, and deep interest in abstract ideas are characteristics mentioned by others. The gifted child is less patient with routine and desires less close supervision. His versatility in interests plays a large part in the formation of his attitudes. He has an integrated personality for "he is guided by a rather high degree of common sense,

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[1]Karl C. Garrison, Psychology of Exceptional Children. Revised Edition; New York: Ronald Press Company, 1950, p. 112.

[2]Merle R. Sumption, Dorothy Norris, and Lewis M. Terman, "Special Education for the Gifted Child," The Education of Exceptional Children, Chapter XIV, Forty-ninth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1950, p. 272.

breadth of mind, and the power of self-criticism."[3] In Terman's follow-up study evidence was offered that the gifted children had shown high achievement in abstract subjects and least in penmanship, spelling, and routine arithmetical computation.[4] They had many-sided, spontaneous interests and averaged more than two years above the age norms.[5] Gifted boys, according to Garrison,[6] excel gifted girls in general information, arithmetic, science, and history; girls over ten are slightly superior to boys of that age in language ability. Terman[7] indicates in his first volume that reading interests of the gifted are in science, history, biography, poetry, drama, and travel and that there is less interest in adventure, mystery, and emotional fiction than is found among other children. Hollingsworth refers to their interest in dictionaries, atlases, and encyclopedias. Baker[8] mentions the rich associative processes which characterize their versatility in mental traits; he refers to the interest in large units of work involving many types of activity in the laboratory, or shop. In speaking of their interest in abstract learning he cautions against the danger of the child losing the scientific attitude toward

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[3]Forty-ninth Yearbook, ibid., p. 264.

[4]Forty-ninth Yearbook, ibid., p. 272.

[5]Forty-ninth Yearbook, ibid., p. 272.

[6]Garrison, op. cit., p. 218.

[7]Lewis M. Terman and Others, "Mental and Physical Traits of a Thousand Gifted Children," Genetic Studies of Genius, Volume I. Stanford: Stanford University Press, 1925, p. 454.

[8]Harry J. Baker, Introduction to Exceptional Children. Revised edition. Toronto: The Macmillan Company, 1953, p. 277.

particular problems. Bentley points out that mental life is made up largely of a variety of attitudes which are important in making adjustments in behavior or in the "set of the mind because of the affective tendencies which fuse the organic with the perceptual processes of mental life."[9] Gifted pupils have an abundance of organic capacity and intellectual curiousity. Their level and range give significance to the attributes of intelligence discussed by Thorndike and Pintner. Bentley regards the findings of Herriott as important aspects of intelligent behavior, viz., common sense, breadth of mind, self-criticism, and a sense of humor all contribute to the social aspects of intelligence. Gifted children usually exhibit efficient methods of work with little supervision. Breslich's studies mentioned by Bentley[10] confirm this view. The Toronto study on under-achievers in high school showed that the more superior students had resourcefulness in attacking problems whereas the others, though also of high ability, had perhaps failed to develop good methods of study and used fewer alternatives in solving a problem. Adams[11] quotes Terman's emphasis on the initiative and resourcefulness of the gifted and how they tend to relate vicarious experience to actual life situations in a manner that shows creative thinking in the manipulation of associations. Lulu Stedman,[12]

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[9]John Edward Bentley, Superior Children. New York: W.W. Norton and Company, Inc., 1937, p. 23.

[10]Bentley, ibid., p. 24.

[11]Fay Adams and Walker Brown, Teaching the Bright Pupil. New York; Henry Holt and Company, 1930, p. 15.

[12]Lulu Stedman, Education of Gifted Children. Edited by Lewis M. Terman; Measurement and Adjustment Series. Chicago: World Book Company, 1924, p. 13.

who taught for five years in an opportunity room for gifted pupils, indicates that they are omnivorous readers and that in general they possess an unusual command of English. She related the case of a nine year old child reading Omar Khayyam, Tennyson, and Shakespeare. Witty reports that in every study "rapidity of learning proved to be a characteristic of the gifted child."[13]

Physical Characteristics

In physical traits Garrison[14] indicates that the mentally superior are slightly above average in height and weight and that they are stronger and healthier. They usually have more physical energy. Terman and Oden[15] report that the gifted are above average in growth status and are relatively superior in physical health. Bentley[16] supports the statements of Hollingworth to the effect that the gifted are large and strong and unusually healthy. Hildreth[17] says the gifted pupils of Hunter Elementary School are healthy, active, and that they have good vitality and are above average in height, weight, lung capacity, and strength. They are relatively free of physical defects such as malnutrition, dental caries, and exhibit fewer

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[13]Paul Witty, "Education for Talented and for Leadership," Teachers' College Record, Volume 57, p. 295.

[14]Garrison, op. cit., p. 206.

[15]Lewis M. Terman and Melita H. Oden, "The Stanford Studies of the Gifted," The Gifted Child. Boston: D. C. Heath and Company, 1951, p. 23.

[16]Bentley, op. cit., p. 15.

[17]Gertrude Hildreth, Florence Brumbaugh, and Frank T. Wilson, Educating Gifted Children at Hunter College Elementary School. New York: Harper and Brothers, 1952.

nervous habits. Hollingworth[18] indicates that gifted children are taller than average children and that their responses are quicker and their reaction time faster. Their cranial measurements may be a little larger but are not out of proportion to the whole body. Bright children are often in grades with larger and older children and therefore do not compare as well in motor performances. Baldwin's study[19] of California gifted pupils reveals that the gifted were superior to the age norms in thirty-four anthropometric measurements including, height, weight, general physical development, and muscular energy.

The general conclusion of the various studies by Witty, Terman and others[20] is that, physically, the gifted child ranks above the average child.

Play Interests

Gifted children exhibit broad play interests. Terman and Oden[21] point out that they learn many games and activities and that they like to play with older children of similar mental age. They enjoy making collections and they like school and have wide reading interests. They enjoy

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[18]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1926, p. 112.

[19]Catherine Cox Miles, "Gifted Children," Manual of Child Psychology. Edited by Leonard Carmichael, New York: John Wiley and Sons, 1946, p. 900.

[20]Miles, op. cit., p. 902.

[21]Lewis M. Terman and Melita H. Oden, "The Gifted Child Grows Up," Genetic Studies of Genius, Volume IV. Stanford: Stanford University Press, 1947, p. 56.

hobbies and make-believe situations. Garrison[22] notes that they like to fill in the missing parts in such situations and are quick to recognize the whole pattern. The gifted create imaginary characters and like games with rules and system; furthermore they have a tendency to engage in solitary games involving mental ingenuity. He also reports[23] a study by Boynton of hobby interests of 4779 boys and girls of Grade VI to whom a Kuhlmann Anderson Intelligence Test was administered; the pupils with the highest ratings had from three to six hobby interests such as collecting, reading, and playing musical instruments. Scheidemann[24] reports that Terman found that the gifted showed a greater interest in games that required thinking and were mildly social and rather quiet. They had slightly less preference for competitive games and were more inclined to play alone. They showed less preference for their own sex. Miles[25] refers to a study by Terman and Witty which indicates that gifted children prefer thinking games and commonly choose less vigorous games over ones involving physical activity. Maybury[26] reports that young superior children choose play equipment involving large muscular activities. They liked wheel toys

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[22]Garrison, op. cit., p. 113.

[23]Garrison, ibid., p. 215.

[24]Norma V. Scheidemann, The Psychology of Exceptional Children: Volume I. Boston: Houghton Mifflin Company, 1931, p. 250.

[25]Miles, op. cit., p. 908.

[26]Margaret W. Maybury, "Selection of Materials by Nursery School Children of Superior Mental Intelligence," Journal of Educational Research, Volume XLVI, No. 1, September, 1952, p. 23.

in dramatic socializing play with blocks used as accessories. Books were frequently used for information, enjoyment, and withdrawal from the group. Paints, clays, paste, scissors, paper, and the like were used purposefully.

Carroll is quoted[27] to the effect that children with I. Q. ratings over 170 do not usually make good play adjustments. They tend to watch or engage in solitary activities. He suggests that it is questionable to what extent extremely brilliant children should be forced into play activities with children of similar ages.

Personality

Hollingworth[28] indicates that gifted children have a greater sense of humor, are more imaginative, more courteous, more talkative, more inquisitive, and more willing to take suggestions. They are interested and want to talk, sometimes all at once. They are ambitious but they do not always work to capacity and commonly become lazy and careless about details and mechanical routine. She adds that: "Children selected by I.Q. tests without consideration of other factors show desirable traits of character and temperament in superior degree."

Discipline by self-government is more common among the gifted and juvenile delinquency is seldom encountered in children over 130 I.Q. Hollingworth[29] reports a study by Davis in 1924 in which teachers

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[27]Paul Witty, The Gifted Child. Boston: D. C. Heath and Company, 1951, p. 93.

[28]Hollingworth, op. cit., p. 122.

[29]Hollingworth, ibid., p. 123.

reported that gifted children had tolerance, tenacity of purpose, skill in managing people, and that they enjoyed social popularity and leadership. Leadership manifests itself up to about 160 I. Q. in a group above 130 I. Q. That is, the I.Q. rating of the leader should be somewhat higher than the mean of those led. An I.Q. of 160 is a doubtful qualification for leadership of a group of children of a mean I.Q. of 100. Brumbaugh[30] states that the gifted assume more leadership and greater responsibility at all age levels than does the general population. She remarks that the gifted cheat less and have more wholesome social attitudes. They boast less than their contemporaries. Terman[31] also refers to their trustworthiness and reports that a battery of seven character tests show that the gifted are less likely to boast or to overstate their knowledge; they are emotionally stable and their preferences are more wholesome. Scheidemann[32] reports from the Terman tests that will-power, persistence, dependability, cheerfulness, and courage rated high among superior pupils. Hildreth[33] stated that the gifted are not conceited and are often unaware of their exceptional abilities. While many people of average or below average intelligence have appealing personalities Birch[34] observes that: "...all

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[30]Florence Brumbaugh, "Intellectually Gifted Children," Special Education for the Exceptional, Volume III. Edited by Merle E. Frampton and Elena D. Gall; Boston: Porter Sargent Publisher, 1956, pp. 9-12.

[31]Terman, op. cit., p. 28.

[32]Scheidemann, op. cit., p. 260.

[33]Hildreth, op. cit., p. 29.

[34]Jack W. Birch, and Earl M. McWilliams, Challenging Gifted Children. Bloomington: Public School Publishing Company, 1955, p. 8.

authorities point out that superior and gifted children tend to have the kinds of personalities that make them popular with other children and adults."

Generally the gifted have fewer nervous disorders and are better adjusted emotionally, and, according to Regensburg,[35] the causes for apparent maladjustment should be sought in the home or in the school environment rather than in the nature of the superior intellect. Stedman[36] reports that there was no sign of health breaking under the strain of rapid work in a segregated class she taught.

In addition to the commendable qualities of gifted children it is noteworthy that some exhibit traits that need special attention. Some are bored and impatient regarding the drill and routine of class procedures; they tend to become careless and thoughtless of details. Indifference tends to develop and under-achievement results. Others develop disproportionate interests, limiting their efforts to a single field to the detriment of social and personal growth.

Contrary to earlier opinions concerning the antisocial nature of gifted children, many studies reveal that, generally, they surpass average children by nearly all standards of comparison. Their intellectual power manifests itself in quick insight, persistent enthusiasm, and versatility of interests and methods of attacking problems. Their fine health combined with keen sense of humor and vivid imagination contributes to

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[35]J. Regensburg, "Emotional Handicaps to Intellectual Achievement in Super-Normal Children," Mental Hygiene, October, 1926, p. 49.

[36]Stedman, op. cit., pp. 18-19.

pleasing personalities that are conducive to social adjustment. Their emotional stability, indicative of tolerance and self-discipline, is a factor in their acceptance by social groups.

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PART II

THE EDUCATION OF THE GIFTED CHILD

CHAPTER I

INTRODUCTION

Fifty years of experimentation in the education of gifted children have developed a number of practices that have changed little in recent years. Acceleration is still in evidence both in regular classes and in special groupings. Although unpopular for some time it appears to be gaining more favor as new studies yield favorable findings. Many educators indicate approval of moderate acceleration and graduates of accelerated courses have confirmed its advocated advantages. In fact their manner of life has discredited some of the disadvantages of this method of providing for gifted children. Along with other public organizations, The Ford Foundation for the Advancement of Education has indicated avenues of acceleration in senior high school and university work which result in economy in time required for graduation. Acceleration is an economical device intended to give opportunity for a gifted student to proceed at a rate appropriate to his ability and maturity and to complete an educational program in less than the usual amount of time. Forms of acceleration are grade-skipping or steady progress through a series of grades at less than the normal rate.

The other outstanding procedure is enrichment. This is a method of organizing the learning situation aimed at providing experiences in

greater variety and at a more advanced level. This may be done in the regular classroom or in various forms of groupings such as special classes, special schools, or on the basis of special interests or variations in achievement. Many co-curricular and extracurricular activities are employed in securing enrichment. Field trips, individual attention, flexible programs, and co-operative planning are characteristic features of enrichment procedures. Activities, projects, or units of study represent forms of enrichment. Abler children may deepen their experience by working in areas not explored by average students.

Prior to an experiment in the Cedar Rapids schools in 1954, questionnaires[1] were sent to the superintendents of public instruction in all the forty-eight states. Of those who replied twenty-three reported from one to six school systems actually engaged in planned programs for the gifted. Further information indicated that acceleration, enrichment of the curriculum, and provision of special classes were the usual procedures, with enrichment being the most favored.

Many schools combine both acceleration and enrichment. Some educators maintain that the two are inseparable. Again special grouping facilities enriched acceleration which is more likely to be found in high schools than in elementary schools because pupils' programs are differentiated according to their aims and interests in the high school, thus providing a basis for further differentiation according to ability.

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[1]Clyde Parker, "A Measured Experiment with Mentally Advanced Children," The American School Board Journal; Vol. 133, No. 6. December, 1956, p. 23.

Special classes imply some form of segregation. This may involve separating the pupils from the rest of the school activities on a full-time basis where special classes are established for acceleration or enrichment. In many schools the pupils are not isolated for all their work. They may take some of their work in the regular classrooms and come together in special groups for half a day or even for only a few periods a week. Partial segregation is a common practice for honors classes or groups who wish to pursue a particular interest.

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CHAPTER II

ACCELERATION

Opinion of Educators

Complete individualization of instruction for every student remains beyond the reach of the schools. Acceleration is an administrative arrangement that implies grade skipping or progress through sequential but rapidly paced learning. During the war acceleration answered the emergency demand for skilled manpower and after the war veterans needed special programs to finish interrupted educational plans. Longer school terms and extra courses were adopted.[1] It is characteristic of the manner of life in America to be in a hurry to get a task finished; it has been evident in public thinking that there are many unnecessary courses in the curriculum and that if these were eliminated students might finish school sooner and thus make faster progress through professional studies. The results of such procedures during the war have increased the emphasis upon acceleration. Dr. G. F. McNally[2] told an audience at the closing exercises of the University Branch in Calgary that a new system should be established whereby more gifted students could transfer into a "faster moving group" and reduce their elementary

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[1]Fay Adams and Walker Brown, Teaching the Bright Pupil. New York: Henry Holt and Company, 1930, p. 58.

[2]G. F. McNally, former Deputy Minister of Education and Chancellor of the University of Alberta, and past Canadian representative to Unesco, "Address to University Branch in Calgary"; Reported in Edmonton Journal, April 12, 1957.

schooling by at least two years. Worcester says[3] "There is evidence to show that gifted children who are held back with those of their chronological age are more likely to develop behavior and personality problems than those who are accelerated. There is a danger also of promoting lazy and careless work habits among those who are educationally beyond their classmates but who are held back with them." At various times educators have expressed doubt regarding the wisdom of acceleration. However in the twenties the studies of Ayres, Thorndike, Goddard, Whipple, and Terman all emphasized the extent to which the grade system was ignoring individual differences. Kansas City, Salt Lake, and many other centers tried to do the work of the first eight grades in seven years; multiple tracking and double promotions were attempted. Grade skipping, sometimes referred to as "raw" acceleration, has been practised although it is supposed to aggravate the child's problem of social adjustment and leave gaps in his academic knowledge. In addition the Educational Policies Commission[4] indicates that such a practice is dangerous to health. Martens[5] adds that skipping grades without any opportunity to make up the work that is "skipped" is dangerous as children often encounter difficulty in advanced grades because of work missed. There appears to be an

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[3]D. A. Worcester. The Education of Children of Above-Average Ability. Lincoln: University of Nebraska Press, 1955, p. 36.

[4]Educational Policies Commission, Education of the Gifted. National Education Association, Washington, 1950, p. 50.

[5]Elise H. Martens, Curricular Adjustments for Gifted Children, Bulletin 1946, No. 1. United States Department of Health Education and Welfare, Office of Education, Washington, p. 20.

assumption that grade skipping may solve some of the needs of gifted children. The Connecticut committee[6], however, points out the danger that opportunities for enrichment and creative experiences might be overlooked. According to Witty and Bloom[7] the use of acceleration is generally in disfavor. In the Promotion Policies Report[8] of Alberta a noticeable absence of acceleration is indicated; "for every child accelerated seven are retarded." The Hope Report[9] suggests "that as a general principle acceleration of the progress of pupils should be avoided as it separates them from the social group." Hildreth[10] repeats that the accelerated child will be in a grade where he is younger than most of the children and that he will have skipped important areas of subject matter. Furthermore he may be marked out by other students as one who has received favor from the teacher. Hildreth does not recommend acceleration by skipping in the lower grades. But she does say that in the upper grades and in high school moderate acceleration may not be detrimental, provided physical and social maturity is evident. Acceleration should always be in moderation and not far in

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[6]Education for Gifted Children and Youth: A Guide for Planning Programs, Bulletin No. 77, June 1956. Hartford, Connecticut: State Department of Education, p. 27.

[7]Paul Witty and Samuel Bloom, "Education of Superior High School Students," Bulletin of the National Association of Secondary School Principals, Volume 39, No. 207, January, 1955, p. 21.

[8]Promotion Policies in Alberta: Interim Report, December,1955, p. 7.

[9]Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 79.

[10]Gertrude Hildreth, Florence Brumbaugh, and Frank Wilson. Educating Gifted Children at Hunter College Elementary School. New York: Harper and Brothers, 1952, p. 260.

advance of the age group. The Connecticut Committee[11] indicates that there are some children whose total development should make it possible for them to work with older children even though it is generally believed that child development is more wholesome if carried on with a chronological age group, and that children should not be separated from their peers. Nevertheless it is significant that the age span in the ordinary grade is frequently as much as four years, and large groups of children are not commonly grouped on a chronological age basis anyway. A Texas Committee[12] concluded that: "Acceleration, or the process of completing school grades at a rate of more than one grade each year, does not seem advisable for all gifted children." The Committee emphasizes that physical, mental, social, and emotional development must be considered in any accelerated program. Martens[13] says that the unusually bright child can and should advance through school faster than the average child, but that his pace should be determined on "the basis of his mental capacity, plus his physical development, plus his social maturity. ...each of these three is an important factor in guiding the whole child."[14] And the Connecticut Committee[15] joins in saying that acceleration should only follow after

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[11]Connecticut Committee Report, op. cit., p. 27.

[12]Curriculum Enrichment for Gifted Elementary School Children in Regular Classes. Prepared by a University of Texas Workshop and edited by Henry J. Otto. Austin: Bureau of Laboratory Schools, Publication No. 6, 1955, p. 12.

[13]Martens, op. cit., p. 19.

[14]Martens, ibid., p. 21.

[15]Connecticut Committee Report, op. cit., p. 27.

much consideration of objective data such as health reports, cumulative records, and reports of psychologists. Laycock[16] warns against much acceleration and indicates that more than two grades of acceleration is apt to mean putting less mature children with those who possess a greater degree of motor coordination. Gathercole[17] states: "Our great concern with accelerating children at the primary level is that they lack the muscular coordination necessary for good handwriting." And the same emphasis on maturity is reiterated by others:

> No universal rule can be laid down governing the amount of acceleration that is desirable. All cases must be weighed against the background of the child's personality. Moderate acceleration, particularly in high school and college is not inadvisable when the individual is socially and physically mature.[18]

Terman indicated that there was no final rule for acceleration. But his studies led him to conclude:

> There is reason to believe that the influence of school acceleration in causing social maladjustment is greatly exaggerated...It is our opinion that nearly all children of 135 I.Q. or higher should be promoted sufficiently to permit college entrance by age seventeen at latest, and that a majority in this group would be better off to enter at sixteen.[19]

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[16]Samuel R. Laycock, "The Bright Child in School," New Schools for Old. No. VI, of a Series of Radio Talks; Saskatoon: University of Saskatchewan Book Store, p. 30.

[17]Fred Gathercole, Letter of February 27, 1957.

[18]Merle R. Sumption, Dorothy Norris, and Lewis M. Terman, "Special Education for the Gifted Child," The Education of Exceptional Children. Forty-ninth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1950, p. 277.

[19]Lewis M. Terman, and Melita H. Oden, "The Stanford Studies of the Gifted," The Gifted Child. Edited by Paul Witty; Boston: Heath and Company, 1951, p. 43.

Making reference to the cautious attitude of advocates of acceleration, Parkyn[20] indicates that there are many who favor moderate acceleration. He mentions that, in 1943, the Education Policies Commission recommended, as an emergency measure, the admission to college of highly selected students who had finished grade eleven and that Boardman, after summarizing many studies on the subject, agreed that there was considerable support for the recommendation. Witty and Pressey both favor moderate acceleration. Baker,[21] however, asserts that accelerated pupils may absorb only the intellectual phases of subject matter without much realization of the cultural, social, or political significance of the material. The Hunter College Elementary School expresses the view[22] that, in agreement with the conclusions of the Speyer School experiment, gifted children can do the elementary work in two years less time but acceleration is not favored as it is felt that there are many other areas of learning that can be explored without moving into more advanced work. Sumption[23] points out that placing young pupils with older ones imposes upon them a physical and social handicap and fails to provide opportunity for them to have leadership experience. But she says that time is saved and that the children usually have new learning

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[20]G. W. Parkyn, "Children of High Intelligence," Educational Research Series No. 30. New Zealand Council of Educational Research, Aukland: Whitcomb and Tombs Ltd., 1948, p. 134.

[21]Harry J. Baker. Introduction to Exceptional Children. Revised edition; Toronto: The Macmillan Company, 1953, p. 290.

[22]Hildreth, op. cit., p. 260.

[23]Merle R. Sumption, Three Hundred Gifted Children. New York: World Book Company, 1941, p. 28.

situations with children of similar mental ages. Bentley[24] states that acceleration increases motivation, discourages dawdling, and allows the student to finish his professional training earlier and to make an earlier marriage. He does add that "social sophistication aided by abnormal companionship with older classmates is a danger often coincident with skipping."[25]

The California State Advisory Council on Educational Research makes this statement:

> Acceleration up to three or four semesters between grades one and twelve has been found valuable and not socially deleterious for the top one per cent of the school population in studies conducted in the East. While other factors such as physical and social development need to be taken into consideration, it is evident that a significant proportion among this top one per cent are not currently receiving optimum school opportunities, because of an educational lockstep ... acceleration is the easiest way of taking care of the problem of some gifted children, and that many gifted children can well use the extra year thus gained for study in college or graduate work.[26]

J. W. Trusler[27] has recommended more frequent use of acceleration for pupils of I.Q. of 125 or above. McWilliams and Brown[28] believe that mathematics lends itself most to the policy of acceleration as it is a

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[24]John Edward Bentley, Superior Children. New York: W. W. Norton and Company, Inc., 1937, p. 125.

[25]Bentley, ibid., p. 126.

[26]Research Resume, No. I, Annotated Bibliography: Gifted Child Education. California State Advisory Council on Educational Research. Sacramento: September, 1956, p. 2.

[27]J.W. Trusler, "Pupil Acceleration in Elementary Schools," Grade Teacher. Vol. 67. October, 1949, pp. 96-98.

[28]Earl M. McWilliams and Kenneth E. Brown, The Superior Pupil in Junior High School Mathematics. Bulletin 1955, No. 4, United States Department of Health, Education, and Welfare. Washington: Office of Education, p. 28.

sequential subject where achievement encourages further progress. Freeman[29] defends acceleration as a general educational policy but indicates that social problems involve better school organization so that enrichment is also provided.

There is always an educational objective to bear in mind; if education is a business of learning the course content then, as Sumption[30] says, if the child can learn it faster he should be accelerated. But if education is concerned with the development of habits, attitudes, and social experiences then enrichment for the gifted should give more educational maturity.

Again people speak of a curriculum as having a certain content to be mastered and that the gifted should master it faster. Pressey[31] points out that the gifted child may need a different kind of curriculum rather than a more rapid passage through the regular one. The curriculum may not be a straight and narrow path for all students; some should be able to get more from it than others. Again acceleration may limit a child's interests. He may not be making a great effort at a certain level but if accelerated to harder work he may have to narrow his interests:

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[29]Walter S. Monroe, editor, Encyclopedia of Educational Research. Revised edition; prepared under the auspices of the American Educational Research Association, New York: The Macmillan Company, 1950, p. 508.

[30]Sumption, op. cit., p. 29.

[31]Sidney L. Pressey, Educational Acceleration: Appraisals and Basic Problems. Bureau of Educational Research Monograph, No. 31, Columbus: Ohio State University Press, 1949, p. 135.

> ...even the sequential subjects are not so narrowly defined that the amount to be learned at each stage is all that can be learned by the average child or all that should be learned by an intelligent child.[32]

Experimental Studies

In 1933 Witty and Wilkins[33] concluded from a study of the literature on acceleration that a moderate amount of acceleration was justified for gifted pupils. Terman's genetic studies assert that two years of acceleration in elementary grades is not conducive to maladjustment.[34] His follow-up studies in 1925 and again in 1930 indicated that the advantages of acceleration were in evidence and that there had been no narrowing of interests. While there was some drop in the ratings from 1925 to 1930, "the scores were still far in excess of those of average children of like age."[35] The twenty-five year follow-up study in 1946 revealed significant facts concerning the pupils who had been accelerated. Those who had graduated from high school a year earlier than non-accelerates did better work in university and took more work there as well, and later held a

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[32]Pressey, ibid., p. 135.

[33]Paul Witty and Laroy Wilkins, "The Status of Acceleration or Grade Skipping as an Administrative Practice," Educational Administration and Supervision, Volume XIX, May, 1933, pp. 321-346.

[34]Catherine Cox Miles, "Gifted Children," Manual of Child Psychology, edited by Leonard Carmichael; New York: John Wiley and Sons, 1946, p. 912.

[35]Miles, ibid., p. 913.

proportionately larger number of positions in the professional occupations.[36] Marriages appeared well founded and social adjustment was good. On the basis of high school graduation the subjects of Terman's study were divided into three groups: sixty-two highly accelerated who had graduated at the age of fifteen and a half years; 332 moderately accelerated who had graduated between the ages of fifteen and a half and sixteen and a half; and a group of 998 non-accelerates who had graduated after the age of sixteen and a half years.[37] A comparison was made between the accelerates and the non-accelerates with respect to avocational activities and interests in twelve specific fields. Marked acceleration appeared to have "little or no lasting effect on the number of avocational interests and no narrowing effect on range of interests."[38] The tests and questionnaires were submitted to about fourteen hundred of the original 1528 subjects selected in 1921. Status in health, physique, mental health, vocational interests, marriage, contentment, educational progress, and achievement in science, invention, literature, and various professions was most commendable.[39] Terman found "that the average child in his selected group of gifted children was accelerated about fourteen per cent in grade placement; but a set of achievement tests showed that in the mastery of curriculum

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[36]Lewis M. Terman and others, "Mental and Physical Traits of a Thousand Gifted Children," Genetic Studies of Genius, Volume I. Stanford: Stanford University Press, 1925, p. 271.

[37]Forty-ninth Yearbook, op. cit., p. 275.

[38]Ibid., p. 275.

[39]Terman and Oden, op. cit., pp. 23-33.

material, he was accelerated about forty-four per cent of his age.[40] He was far superior to the unselected group in reading, literature, language, science, and mathematical reasoning.

Various follow-up studies were made. Psychologists chose the top and bottom twenty per cent of the 730 men in the group to permit study of the extent to which each subject had made use of his superior intelligence.[41] The top group had been more accelerated in school. Ninety per cent of the top group graduated from college as against thirty-seven per cent of the lower group; seventy-six per cent of the top group completed graduate work as compared with fifteen per cent of the lower group; and seventy per cent of the top group followed professional fields as compared to nine per cent of the lower group. The differences in achievement in childhood began to appear in high school and continued to show in subsequent studies. The top group showed more perseverance, better mental health, and greater tenacity in finding entrance into desired occupations. The study showed that the accelerated group in the top twenty per cent showed greater drive to achieve and superior social adjustment. The volume entitled,[42] "The Gifted Child Grows Up" gave considerable evidence supporting acceleration which had suffered eclipse in the educational thinking of the twenties and thirties. Many studies have been carried out since its publication.

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[40]Forty-ninth Yearbook, op. cit., p. 272.

[41]Terman and Oden, op. cit., p. 35.

[42]Lewis M. Terman and Melita H. Oden, "The Gifted Child Grows Up," Genetic Studies of Genius, Volume IV. Stanford: Stanford University Press, 1947.

Witty[43] sent questionnaires to fifty-six towns and cities in the United States in 1949 and he received twenty-nine replies, seven of which indicated that acceleration was used for superior high school students with a limitation of one or two years. Ypsilantis[44] reports that "about a million school children or five per cent of the school youth between the ages of eight and eighteen were enrolled in the United States in grades higher than those expected for their age group." He adds that though twenty per cent are retarded there is acceleration among all the age groups near a relative constant of four to six per cent. Age-grade status is sometimes deceiving when regard is not given to the time a child starts school; one may have started after six whereas another may have been admitted at the age of five and a half years and not be an accelerated pupil.

In 1948 Mildred Mills[45] received thirty-three replies from cities regarding their provisions for the gifted in the elementary schools. Several replied that the gifted child often reached high school socially immature. Oakland suggested that it approved reasonable acceleration - "one year in elementary and one year in high school." Parkyn[46] made a

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[43]Paul Witty, "Nature and Extent of Educational Provisions for the Gifted Pupil," The Gifted Child. Edited by Paul Witty, Boston: D. C. Heath and Company, 1951, p. 202.

[44]James N. Ypsilantis and Eleanor H. Bernert, "Variations in Age-Grade Status School Performance," Teachers' College Record, Volume 58, No. 5, February, 1957, p. 270.

[45]Paul Witty, "Nature and Extent of Educational Provisions," Educational Administration and Supervision, Vol 37, No. 2. February,1951,p.68.

[46]P. Parkyn, op. cit., p. 92.

study in 1947 of a group of children selected by the Binet test in 1941 and concluded that acceleration had been justified in most cases although there had been some errors in judgment. He refers to the fallacy that mental age includes all manifestations of intelligence, whereas it actually is limited to the score made on an intelligence test.[47] He maintains that because a child makes a high score it does not follow that he has as well all the qualities that should be included in a concept of mental maturity for a given age.

Pressey[48] reports a study in 1937 by William Herr in a Pennsylvania city in which ninety-seven accelerated pupils in junior high school, who took the three years of work in two years, were compared with a group of ninety-seven other students who took the full three years. The little difference found was in favor of the accelerated students. There was no outstanding difference in health, attendance or social adjustment. Lorge[49] reports on a study by Justman of accelerated pupils in a tenth grade special progress group who achieved as well as the matched group comprised of students a year older but of similar ability. Adams[50] reports that the Ben Blewett School in St. Louis is another example of acceleration in the junior high schools where able pupils take the three grades in less than three years. For several years acceleration has been practised in

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[47] Ibid., p. 135.

[48] Pressey, op. cit., p. 15.

[49] Irving Lorge, "Social Gains in the Special Education of the Gifted," School and Society, Volume 79, No. 2024, Januaru 9,1954, p. 5.

[50] Adams, op. cit., p. 58.

a Minnesota school where Grades VII and VIII were taken in one year; the graduates from high school of this accelerated group showed no undesirable personality traits. Nevertheless it is important to remember again that acceleration must not overlook social maturity.

The Report[51] of the Baltimore School Board states that the acceleration effected in four of its junior high schools "is not excessive when the individual children are carefully selected on the basis of maturity and social adjustment." The Committee further states that segregation of elementary children into special schools or special classes does not promote social adjustment and that parents are increasingly skeptical of the overall advantages of acceleration. However it is significant that on the basis of flexible criteria the top twenty per cent[52] of the pupils are regarded as gifted and those in the lower part of this grouping may discredit the objectives of the segregated classes. One of the best arguments for separate classes is that it permits acceleration without grade skipping.

In May, 1952, The Bureau of Educational Research and Measurement reported[53] on the performances of intellectually gifted children in special classes with equivalent intellectually gifted children in the regular classes. The matched pairs were tested and after fourteen months

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[51]Baltimore Bulletin of Education, Volume XXXI, No. 5, June, 1954, p. 5.

[52]Baltimore Bulletin, ibid., p. 4.

[53]Lorge, op. cit., p. 5.

were retested and the evidence showed that the group in the special classes made significantly greater gains in knowledge and its use while maintaining the expected growth in personality, values, and interest.

> The evidence from these valuable studies of the Bureau of Educational Research demonstrates that not only can a year be saved but that it can be saved without loss in the social values or deterioration in personal adjustment.[54]

The Ohio State project[55] involved special classes for acceleration. Instead of taking five fifty-minute periods each week the superior students took one two-hour lesson each week. Sixty-five per cent of the students from this group make A's or B's as compared to the twenty-eight per cent of the regular class who wrote the same examinations. Matched with individual students from the regular class the accelerates showed up to advantage; and of course the students who took the evening class had free periods during the day for an additional course.

Pressey[56] cites studies made over a number of years of young college entrants at Harvard, Columbia, Minnesota, and Northwestern Universities. The studies point to a common conclusion that the young entrants had a larger proportion of able students, took more graduate work and achieved more honors. The youngest entrants had the highest ability.

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[54] Ibid., p. 6.

[55] E. Brock Rideout, "The Gifted Child." Reprint from The Bulletin of the Ontario Secondary School Teachers' Federation, September and November, 1954, p. 12.

[56] Pressey, op. cit., p. 7.

Mary E. Albers[57] and May Seagoe found in a California study that time in algebra classes could be reduced fifteen per cent without injury to the learning of superior students. Seagoe says that educators agree that a superior child will shorten his stay in school and have a broader experience while he is there. In an experimental class in algebra she attempted to develop the significance of mathematics, introduce factual knowledge beyond the demands of the course and create lasting interest. She carried on the experiment for eighty days during which the gifted received forty-five minutes a day teaching plus fifty-six minutes a day in home study plus fifteen per cent of the regular algebra time for enrichment material. They achieved about the same as her control group but showed considerably more interest.

Beaton's[58] study indicates that 119 accelerated students were identified out of 2,618 Grade X children. The accelerated ones were pupils who had started school at five and a half years or had started after the age of six and had skipped a grade or had taken two grades in one year. The mean age of the accelerates in the Grade X study was fourteen years and nine months as compared with a mean age of fifteen years and five months of the control group. The mean intelligence quotient for the accelerated group was 122.1 with a standard deviation of

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[57]Mary E. Albers and May Seagoe, "Enrichment for Superior Students in Algebra Classes," Journal of Educational Research, Vol. 40, March,1947, pp. 481-484.

[58]Mary A. Beaton, "The Effects of Acceleration on the Academic Progress and on the Personal and Social Development of Edmonton and Calgary Grade X Students," The Alberta Journal of Educational Research, Vol. II, No. 4, December, 1956, pp. 208-216.

11.1; whereas the mean intelligence for the control group was 122.1 with a standard deviation of 9.6. The differences in academic progress were not statistically significant except in reading and language where the non-accelerates showed some superiority. The accelerated students were less active socially. There appeared to be more self-confidence among the accelerated students. Fifty per cent of the accelerated pupils thought acceleration had been helpful in personality development and forty-eight per cent stated they thought it had been advantageous in the school work. Forty-three per cent thought that being with older students had helped them socially. Being a year younger the accelerates may have found that size was a deterrent in their social life. The evidence indicates that the accelerated students who were a year younger did as well academically as the non-accelerants.

Studies by Keys, Gray, Husband, and Silverman are reported by Pressey[59] indicating evidence that young college entrants participated in athletics, social activities, and positions of leadership without any sign of emotional maladjustment.

These conclusions give support to the arguments put forth for early admission to college or with advanced standing. Witty[60] notes that the University of Chicago favors acceleration and sets up its college entrance requirements so that students may enter after two years of high school.

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[59]Pressey, op. cit., p. 8.

[60]Witty, op. cit., p. 40.

Hildreth asserts that:

> ...test results prove that the senior high year and college freshman overlap ninety per cent. The gifted could easily skip one of these years. Possibly eighth and ninth grades could also be combined without loss to the mentally gifted. The three years usually spent in senior high school plus the four-year college sequence could be shortened for the gifted to five or six years, especially if these years in high school and college were treated as a unit.[61]

According to Pressey[62] students allowed to enter college on the basis of an entrance examination with less than four years of high school training have been quite successful in university work. These students all give significance to the interest of the Ford Foundation for the Advancement of Education.

Pressey[63] reported a study at the University of Buffalo which matched fifty-seven entrants less than seventeen years of age against fifty-seven other entrants two years older who had similar percentile ranking on the American Council Psychological Examination. The younger entrants equalled the older controls in average marks and percentage graduating with distinction, and excelled the older students in mathematics and language.

Pressey[64] also reports a study by Learned that shows great individual differences among a college group; the test of senior high school students and college freshmen showed ten per cent of the senior

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[62] Forty-ninth Yearbook, op. cit., p. 260.

[63] Pressey, op. cit., p. 8.

[64] Pressey, ibid., p. 38.

high school surpassing the college-senior level. Fourteen per cent of the high school seniors surpassed the average of the college seniors of twenty-one years of age. The youngest group in every class averaged highest.

Jones and Ortner[65] reported on a study in 1932 at the University of Buffalo involving accelerated entrants who found the first year of university a repetition of some of the high school work they had done and so they were permitted to take examinations for advanced credit in the University when they graduated from high school. The college grade averages in the first two years and in the last two years were slightly in favor of those who took the examinations. These people graduated sooner but of course they spent a year less on the campus which meant they were probably handicapped for leadership positions. They did better independent study and many did post-graduate work.

> The biggest factor in the growth of this credit examining acceptance in many colleges is the principle of individual differences. Many teachers believe it is a good thing for the abler people to work on their own. ...Age alone is an inadequate gauge of intellectual accomplishment and many high school students are capable of unusually mature, independent thinking.[66]

At approximately twenty years of age the human organism completes the growth process and settles into adult patterns.[67] The period of

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[65]Edward S. Jones and Gloria K. Ortner, "Advanced Standing for Superior Students through Examinations at the Beginning of College Courses," National Education Association Journal, Vol. 43, February, 1954, p. 107.

[66]Jones, ibid., p. 108.

[67]Pressey, op. cit., p. 41.

maximal health, vigor of interests, and potentiality for intellectual creativeness comes about this time and so it is important to adjust educational programs to the personality patterns of those who should be entering their careers as soon as possible. Data presented from examination of pre-war student groups show substantial individual differences in rates of maturing.

> Programs should adjust to individual differences and permit the most able to complete advanced training comparatively soon after reaching maturity with and without using too many years of the prime of young adulthood.[68]

Many educators have concluded that moderate acceleration is beneficial for those with the power to learn quickly, provided they have good social and physical maturity. The arguments are that acceleration challenges more effort and develops better attitudes and habits of work. Experimental studies have confirmed many of these views. Terman, Pressey, Justman, and countless others have contributed evidence of the value of acceleration. School boards have commended acceleration in their programs. Some favor more rapid progress in the elementary school, although the practice is more common at the junior and senior high school levels. A number of university studies indicate that accelerated entrants have acquitted themselves creditably in college work.

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[68]Pressey, Ibid., p. 41.

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CHAPTER III

ENRICHMENT

Enrichment consists of the selection and organization of learning experiences conducive to the optimal development of the child. The richness and the stimulation of a desirable program for the gifted comes not only from the nature of the situation but from the sensitivity and the ability of the child to reorganize experience for greater and deeper learnings. Hildreth says that: "The gifted child's program is truly enriched ... through setting up a unified type of program which provides to the fullest degree for meaningful experiencing in a rich environment."[1] Goddard[2] indicated that preparation for adult life is not particularly shortened by superior intelligence, and that enrichment was more important. The child is not being prepared to live but rather "he is living," and his experience should be challenging, with opportunity for enjoyment and reflection.

Not long ago educators said differences in creativeness were differences in kind rather than in degree.[3] Now they say it is a difference in degree and not in kind, and that all persons have creative ability.

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[1]Gertrude Hildreth, Florence Brumbaugh and Frank Wilson, Educating Gifted Children at Hunter College Elementary School. New York: Harper and Brothers, 1952, p. 262.

[2]Henry H. Goddard, School Training of Gifted Children. New York: World Book Company, 1928, p. 19.

[3]Henry Beaumont, and Freeman Glenn Macomber, Psychological Factors in Education. New York: McGraw-Hill Book Company, 1949, p. 293.

Scheifele[4] says "differentiation of the curriculum for the gifted lies not so much in the kind of experiences provided as in their variety, depth and advanced level." Gossard,[5] after a survey of the period from 1870 to 1940, made the pronouncement that enrichment had more support, and Wolfson,[6] on the basis of class observation, agrees that enrichment meets the needs of gifted children. The White House Conference[7] of 1930 expressed the same view. Weglein[8] said the child should have the choice between acceleration and enrichment but recognized the character of educational experience as more important than the amount.

Enrichment is not an administrative arrangement. It is a teaching procedure -- the process of stimulating intellectual children with or without the use of administrative arrangements. It is the use of a variety of resources and experiences which give a new and richer meaningfulness to life.[9] True enrichment implies that the child gets deeper understanding and puts his understanding to use.

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[4]Marian Scheifele, "The Gifted Child in the Regular Classroom," Bureau of Publications, No. 12. Teachers' College, Columbia University, New York, 1953, p. 46.

[5]Walter S. Monroe, editor, Encyclopedia of Educational Research. Revised edition; prepared under the auspices of the American Educational Research Association, New York: The Macmillan Company, 1950, p. 507.

[6]Encyclopedia, ibid., p. 507.

[7]Encyclopedia, ibid., p. 507.

[8]Encyclopedia, ibid., p. 507.

[9]Education for Gifted Children and Youth: A Guide for Planning Programs, Bulletin No. 77, June, 1956. Hartford, Connecticut: State Department of Education, p. 12.

The Educational Policies Commission states that:

> The typical gifted child by his very nature tends to get more out of school than the typical average child ... through deeper insights, broader understandings, keener appreciations, and more memories. Thus life for the gifted tends to be enriched merely by the living of it and any life experience within the school enriches the gifted more than the average.[10]

The values derived from this unplanned enrichment usually fall short of the potentiality of the gifted. Many argue that the child is motivated from self-direction and it matters not what he is taught but rather that emotional guidance is needed to help him develop his intellectual curiosity. However, there is wide agreement that systematic efforts must be made if appreciable enrichment is to be achieved.

Enrichment in Regular Classes

It is noted that enrichment in a narrow sense involves deliberate differentiation of curriculum content and activities for superior pupils in a heterogeneous class. The people proposing this plan maintain that education for the gifted applies to individuals and not to groups and therefore they are not in favor of special classes.[11] Elective courses, correspondence courses, and extracurricular activities are all proposed as means of enrichment. Elective courses apply largely to high schools and colleges.

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[10]Educational Policies Commission, Education of the Gifted. National Education Association, Washington, 1950, p. 55.

[11]Educational Policies Commission, ibid., p. 57.

The Educational Policies Commission recommended[12] that, with the exception of those highly gifted in music or those physically or socially maladjusted, all gifted secondary students should take as enriched courses advanced mathematics, a foreign language, and additional work in social studies.

Bentley[13] emphasized the significance for enrichment of physical, social, mental, and educational factors. He mentions a large number of enrichment procedures that involve extra reading, making models, field trips, and social activities. Enrichment within the regular classroom implies modifying[14] techniques for individual instruction such as adjusting the types of assignments, the directions given to the gifted, and the modification of teaching procedure pertaining to drill, formal review, illustrations, reports, and the principles concerned. This assumes ability grouping within the regular classroom for some of the work. He also points out that enrichment should grow out of the needs and interests of the pupils and that modifications of the curriculum should be in accordance with the understandings and abilities of the pupils. It should mean enrichment of the learning process, not just addition of material to the course. He quotes Goddard[15] to the effect that enrichment means giving

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[12]Ibid., p. 63.

[13]John Edward Bentley, Superior Children. New York: W. W. Norton and Company, Inc., 1937, pp. 138-142.

[14]Bentley, ibid., p. 130.

[15]Bentley, ibid., p. 131.

a broader experience that will develop interests and contribute to mental, moral, and social development. Goddard[16] himself indicates that enrichment depends largely upon the resourcefulness of the teacher in using dramatics, field trips, visual aids, French, wide reading interests, and activities in music, art, manual training, and typewriting. He notes that typewriting encourages children to use capitals and forms of punctuation carefully in preparing a properly finished page.

Scheifele[17] admits enrichment might be more easily achieved in a special classroom than in a regular one. But from the practical standpoint it is not easy to provide special classes except in large centers. She outlines many enrichment activities under the headings of School and Community-Service activities: activities integrated with group projects, independent activities, and creative activities. Adequate materials, small classes, flexible curricula, and time for the teacher to plan and acquaint herself with various resources are all factors in the success of enrichment procedures in a regular classroom.

Gross[18] points out that in heterogeneous classes there are examples of gifted children preparing units of work, community surveys, class projects, school magazines, and displays. He asserts that while an enrichment program involving more complex relationships may be geared to

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[16]Goddard, op. cit., pp. 88-100.

[17]Scheifele, op. cit., p. 46.

[18]Richard E. Gross, "The Challenge of Social Education for the Gifted," Social Studies; Vol. 45. October, 1954, pp. 199-204.

the abilities of the gifted, it may also include emphasis upon the basic general education essential for other students as well. Dransfield[19] described units of study which include references, objectives, activities, guiding questions and self-administering tests. Hollingworth[20] has stressed the gifted child's need for understanding the history of human progress because she is insistent on the leadership role that gifted children will play in society.

Procedures most favored for a flexible program are unit method seminars, field trips, parent-teacher conferences, research projects, socialized recitations, individual instruction, study of French, literature, and biography, and education for the use of leisure time. Dramatics, language arts, debates, clubs are also mentioned. Hollingworth mentions study areas of evolution which affect time, water, and plants. Brumbaugh[21] refers to the flexibility of courses at Hunter College Elementary School.

Though evidence is inadequate, several studies indicate advantages of enrichment over acceleration. Sylvester[22] urged enrichment to give an extensive range of knowledge, power skill, alertness, and efficiency. Steinberg[23] recommended units of work based on problems dealing with

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[19]E. Brock Rideout, "The Gifted Child," Reprint from The Bulletin of the Ontario Secondary School Teachers' Federation. September and November issues, 1954, p. 8.

[20]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1929, p. 313.

[21]Hildreth, op. cit., p. 36.

[22]Encyclopedia of Educational Research, op. cit., p. 508.

[23]Ibid., p. 508.

significant aspects of life and involving questions which constitute a challenge to individual and cooperative effort. Thom[24] supports Hollingworth in the value of French for enrichment. Eisner[25] indicates that current events, debates and long range research projects add to enrichment programs. Witty[26] and Lehman say that the gifted make their own differentiation in literature. Auburn[27] speaks of enrichment in the regular classroom as the most widely accepted method. Donald Russel[28] favored enrichment; he urged functional drill and analysis of local resources.

Flexible organization of materials, procedures, and use of pupils' time is urged by Parker and Russel[29] who say that dividing classes into smaller groups might be accepted for some time in the elementary grades for reading or for social studies; but the grouping must be flexible as there are wide differences in all but one or two areas, and one group might be good in one field and inferior in another. They assert there is no basis for any particular grouping and that "The more modern detailed studies of children seem to suggest that homogeneous grouping of two

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[24] Ibid., p. 507.

[25] Ibid., p. 507.

[26] Ibid., p. 507.

[27] Report of ACE Conference on Acceleration; reported by Auburn in School and Society; Vol. 73, April 1951, p. 218.

[28] D. W. Russel, "A Functional Approach to the Study of Gifted," Elementary School Journal. Vol. 57, No. 1, October, 1956, p. 46.

[29] J. Cecil Parker and David H. Russel, "Ways of Providing for Individual Differences," Educational Leadership, Vol. II, December, 1953, p. 169.

children is impossible, much less that of thirty or thirty-five youngsters." They cite Keliher's objections[30] to homogeneous groupings such as XYZ systems as she too says that there are wide differences in all but one or two areas. There should also be flexibility of assignments and standards of work. In the free periods readiness instruction and individual attention may be provided. Again if the student knows the work he may be excused from a number of classes in that subject.

Stedman suggests enrichment by teaching children how to use the library, how to study independently, and how to do research. Study of a foreign language, creative writing, and preparation of reports and composition scrapbooks should challenge the superior pupils. She says that the reading interests of the gifted make it easy to carry on many forms of enrichment. She observes that gifted children often receive much help from parents through conversation, reference reading opportunities, and other conditions that promote development of individuality:

> Gifted children who are taught at home for several years either by parents or tutors, usually possess a richer background, a larger fund of general information and a far more extensive vocabulary than normal children of the same age.[31]

The Hope Report favors extra courses for enrichment and indicates that "pupils should be classified at each level of the program according to needs, ability and achievement."[32] The Education Policies Commission[33]

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[30] Ibid., p. 169.

[31] Lulu M. Stedman, Education of Gifted Children. Edited by Lewis M. Terman; Measurement and Adjustment Series. Chicago: World Book Company, 1924, p. 183.

[32] Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 78.

[33] Educational Policies Commission, op. cit., p. 52.

gives recognition to the idea of ability grouping in the regular classroom and indicates the needs for varying instructional materials and assignments according to abilities. Recognition is also given to the claim that the brighter pupils stimulate the slower ones although it may be held that the slower ones are discouraged and their opportunities for participation are lessened. Again some teachers object to assuming charge of classes from which the gifted have been removed.[34]

Scheifele,[35] noting the philosophy underlying enrichment in the regular classroom, emphasizes the social values inherent in heterogeneous grouping. Children work in social situations and develop regard for the dignity of the individual and appreciation for the achievement and the abilities of others. She notes too that stimulation is afforded the slower students.

The Connecticut Group[36] also asserts that the school is a replica of a community in which children may learn respect and appreciation of the points of view of others and that in heterogeneous classrooms bright pupils may learn to communicate and cooperate with those who think less rapidly and less creatively. Thus slower children may be stimulated and provision for the gifted should help everyone because it lifts the level of living and learning.

Enrichment in the regular classroom usually involves individual

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[34] Ibid., p. 45.

[35] Scheifele, op. cit., p. 45.

[36] Connecticut Bulletin, op. cit., p. 23.

attention and special activities for a very small number. Publications such as those of the Office of Education, the Texas University Workshop, Scheifele's Bulletin, and many others describe techniques for enrichment such as units of study, activities, challenging questions, mathematical puzzles, field trips, committee work, science projects, contests, pupil demonstrations, dramatizations, rhythmic activities, reference reading, collections, flexible timetables, and numerous other suggestions in subject fields. Frank Wilson[37] praises the enrichment procedures that are made possible through use of community resources, adequate materials, special interest groups, and extensive reading.

Description of the operation of such programs seldom appears in current publications and the general impression is that enrichment in the regular classroom is a rather sporadic practice.

The Texas Workshop group[38] indicates that enrichment in the regular classroom will likely be the best means of meeting the needs of gifted children for some time. Enrichment of courses for the gifted in the ordinary classroom implies individual instruction with small enrolments and sufficient teacher time for the careful planning necessary for the development of essential skills and creativity commensurate with

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[37]Frank T. Wilson, "What About the Figted Child," Special Education for the Exceptional, Vol. III; edited by Merle Frampton and Elena D. Gall; Boston: Porter Sargent Publisher, 1956, p. 40.

[38]Curriculum Enrichment for Gifted Elementary School Children in Regular Classes. Prepared by a University of Texas Workshop and edited by Henry J. Otto. Austin: Bureau of Laboratory Schools, Publication No. 6, 1955, p. 12.

ability of the pupils.[39] But Rideout[40] suggests that mass education, with large classes, wide range of ability, and heavy-teacher load make such planning almost impossible. If teaching is geared to individual differences then the gifted child's program is enriched. But the average teacher has neither the time, knowledge, nor limited number of pupils to carry out the program. The New York Committee[41] states that it has been almost impossible to meet the special needs of the gifted in a heterogeneous classroom because the group is large, the range of intelligence is wide, and the teachers seldom have special qualifications for the task. Consequently, the gifted are left to their own resources. Barbe[42] insists that gifted children need material of high-interest level and that reading instruction is necessary as many gifted children memorize a story read to them and do not learn to read. He asserts that enrichment should be based on a horizontal level in the same grade rather than on acceleration to a higher grade for reading.

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[39]Miriam C. Pritchard, "The Contributions of Leta S. Hollingworth to the Study of Gifted Children," The Gifted Child. Edited by Paul Witty: Boston: D. C. Heath and Company, 1951, p. 53.

[40]Brock E. Rideout, "The Gifted Child," Reprint from The Bulletin of the Ontario Secondary School Teachers' Federation, September and October issues, 1954, p. 8.

[41]Florence S. Beaumont, Report and Recommendations on the Education of the Intellectually Gifted in New York City: Committee of the Division of Elementary Schools; Board of Education of the City of New York,1952,p.14.

[42]Walter B. Barbe, "Problems in Reading Encountered by Gifted Children," Elementary English, Volume 33, No. 5, May, 1956, p. 275.

Terman and Oden[43] say that the subject matter of the regular classroom courses is not challenging to the gifted and "that enormous differences separate the achievement scores of the gifted from those of unselected children." Witty[44] points out that "the gifted child is offered little that is challenging in the typical elementary school and the neglect is even greater in the secondary school." Despite the dearth of experimental evidence many writers claim that enrichment in the regular classrooms is superior to other procedures. Philosophical grounds, administrative feasibility, and subjective ratings may contribute to this view along with the difficulty of conducting objective evaluation. Rideout[45] states: "To a large extent research studies have shown that enrichment of the program within the ordinary classroom has not been too successful except in the case of outstanding individual teachers."

Enrichment Through Partial Segregation

The Educational Policies Commission recommended enrichment for gifted children at all educational levels. Enrichment within a heterogeneous class should be provided where small enrolments make homogeneous grouping impractical or where the assignment of an individual student to

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[43]Lewis M. Terman and Melita H. Oden, "The Gifted Child Grows Up," Genetic Studies of Genius, Volume IV. Stanford: Stanford University Press, 1947, p. 28.

[44]Paul Witty, "Progress in the Education of the Gifted," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 6.

[45]Rideout, op. cit., p. 8.

a homogeneous group is either undesirable because of his personality or schedule requirements:

> When ability grouping for the gifted is used it should never be used for every part of their school experience. They may be assigned to homogeneous groupings for some of their studies and to heterogeneous groups for others.[46]

Norris, Orleans, and Moskowitz[47] approved of segregation but indicated that the pupil groups should be part of the whole school organization. Professor S. W. Steinson[48] deplores the neglect of the gifted pupils and indicated that part time segregation might remove one of the criticisms pertaining to development of class distinctions. He urges a "planned attempt to provide a reasonable amount of enrichment in both academic and extracurricular work requiring higher levels of achievement than can be attained by average pupils." Professor Hollingworth[49] believed in segregation of classes for intellectual studies and the learning of skills, but not for other activities. Pregler[50] says there is a lack of time and opportunity for the regular classroom teacher to develop special methods and materials which are suited to the teaching of the gifted children, and that after all "special treatment, unless skillfully handled for one or two children in a class, in itself, can create social cleavages."

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[46] Educational Policies Commission, op. cit., p. 67.

[47] Encyclopedia of Educational Research, op. cit., p. 507.

[48] S. W. Steinson, "They are the Forgotten," Education: Collection of Essays, Volume 1, No. 18. Toronto: W. J. Gage and Company, 1955.

[49] Pritchard, op. cit., p. 54.

[50] Hedwig Pregler, "Adjustment Through Partial Segregation," National Elementary Principal, Volume 32. September, 1954, p. 243.

Since partial segregation centers attention on the welfare of the individual without losing sight of the democratic ideal, it provides opportunity for the children of such classes to participate with other children in clubs, assemblies, play activities, and other school projects. It usually means that classes are smaller and it is easier to get a teacher qualified for the particular area being emphasized. It prevents waste of time in the mastery of basic skills and makes possible the development of a program challenging to the intelligence of the group.

The controversial issue of how best to meet the needs of the gifted is treated in various ways. In some areas acceleration is the only method used and that may involve grade skipping, or streaming in the regular classroom or moving at a faster rate in the regular classroom. Special interest classes or honors classes may provide for more rapid progress although it is usually claimed that their major emphasis is on provision of opportunities for broadening and deepening educational pursuits rather than acceleration.[51]

Accelerated Enrichment

It is claimed that acceleration and enrichment cannot be treated as a dichotomy; that it is not a question of either one or the other but rather a question of how much of each.[52] Terman refers to the process of acceleration and enrichment and both Meister and Freeman point out that

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[51]Otto, op. cit., p. 11.

[52]Florence Brumbaugh, "Intellectually Gifted Children," Special Education for the Exceptional, Volume III. Edited by Merle E. Frampton and Elena D. Gall; Boston: Porter Sargent Publisher, 1956, p. 17.

even in a regular classroom the able teacher provides enrichment with acceleration.[53] Enriched acceleration seems contradictory. Acceleration implies obtaining a given amount of education in less than normal time, while enrichment implies a procedure of giving more education in the same time. It is submitted that a class of high-ability youth learns more rapidly and more deeply.

Stedman[54] asserts that the gifted should not be accelerated past the conditions of social compatibility and that a more favorable procedure is enrichment characterized by curriculum adjustment which shortens the time for drill and detailed explanations. The periods may be shorter as the teaching time might be only two-thirds of what is needed for regular classrooms.

Wilson and Woolcock[55] state that the gifted like to be exact in drill areas and wish to have achievement tests as self-checks. Scheifele[56] indicates that programs of acceleration and enrichment combined in the regular classroom seem best suited to serve the welfare of the gifted youngsters. Witty[57] notes that since the war there is more attention

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[53]Brumbaugh, ibid., p. 17.

[54]Stedman, op. cit., p. 187.

[55]Frank T. Wilson and Cyril W. Woolcock, "A Note on Enrichment of Education of Gifted Children," Educational Administration and Supervision; Vol. 40, No. 8, December, 1954, p. 487.

[56]Scheifele, op. cit., p. 46.

[57]Paul Witty, "Nature and Extent of Educational Provisions for Gifted Children," Educational Administration and Supervision, Vol. 37, No. 2. February, 1951, p. 76.

on the attempts to provide acceleration and enrichment and that there are better methods of evaluating growth and appraising learning. Many of the systems report improvement in adjustment and progress. He points out that when the gifted are left with the others it makes them more tolerant in working appreciatively and congenially with individuals of varying ability such as they find in democratic society.

> One half of our gifted children live in small communities where establishment of special classes is impractical. In fact it appears there are very few special classes in the country for elementary school. So we depend on acceleration and enrichment in the regular classroom and much depends on the effort and resourcefulness of the teacher.[58]

Laycock[59] writes that while acceleration is usually easier in a rural than in an urban school nevertheless there is great opportunity for enrichment there also. Most people who urge acceleration think it should be accompanied by enrichment. The Connecticut Bulletin supports this view.[60] Zirkel[61] proposed accelerating a child to his mental age and then enriching his program. Albers and Seagoe[62] in commending enrichment in a regular algebra class pointed out that the procedure increased interest and also saved time.

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[58] Witty, Ibid., p. 76.

[59] S. R. Laycock, "The Gifted Child in the Rural School," Canadian Education, Vol. X, No. 4, September, 1955, p. 86.

[60] Education for Gifted Children and Youth, op. cit., p. 27.

[61] Encyclopedia of Educational Research, op. cit., pp. 508-509.

[62] Brock Rideout, "Educating Gifted Pupils," School Progress; April-May, 1956, p. 31.

Sumption[63] and others state: "In the final analysis there is no conflict between enrichment and acceleration. They complement each other in the best educational program for the gifted child."

It is emphasized that enrichment is a teaching procedure for securing growth without prejudicing social or physical maturity. Many writers urge that enrichment may be achieved in the regular classroom through flexible organization of programs, materials, and pupils' time, and that independent habits of study and acceptable attitudes may be developed. Others emphasize that the average teacher does not have the time, resourcefulness, facilities, nor limitation of small enrolments to effect an enriched program in the regular classroom. Partial segregation is proposed in some centers as a solution. Though controversy exists concerning the method of providing enrichment, there is general agreement that gifted children should have sufficient opportunities to develop their abilities beyond the objectives of the normal classroom.

> If a broadly enriched program is offered the child in his first six or seven years in school he will be challenged to build a background of experience which will stand him in good stead for future acceleration.[64]

Many claim that enrichment is not incompatible with rapid progress and that enriched acceleration is the most commendable procedure. Whether this can be done most effectively in the regular classroom or requires some form of ability grouping is still an unanswered question.

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[63]Merle E. Sumption, Dorothy Norris, and Lewis M. Terman, "Special Education for the Gifted Child," The Education of Exceptional Children; Forty-ninth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1950, p. 278.

[64]Forty-ninth Yearbook, ibid., p. 277.

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CHAPTER IV

ABILITY GROUPING

Introduction

Ability grouping is a procedure for bringing the brightest pupils together for part or for all of their time. Special schools, special classes, schools within schools, or ability groups within the regular classroom are all examples of attempts at homogeneous grouping. Special classes of any form have the advantage that they may be used for either enrichment or for acceleration or for both. Opinion varies widely regarding the administrative feasibility, philosophic merit, and psychological considerations affecting ability grouping. Sumption, Norris, and Terman[1] recommend that wherever possible special classes be organized for the education of the gifted children. Stedman[2] reports that there is no question about the value of such segregation. On the other hand the Hope Report[3] asserts: "We are not fully convinced despite the evidence of some experts, that highly gifted children should be separated from their fellows and educated in separate classes."

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[1]Merle R. Sumption, Dorothy Norris, and Lewis M. Terman," Special Education for the Gifted Child," The Education of Exceptional Children, Forty-ninth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1950, p. 279.

[2]Lulu M. Stedman, Education of Gifted Children. Edited by Lewis M. Terman; Measurement and Adjustment Series. Chicago: World Book Company, 1924.

[3]Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 390.

It would appear that recognition is not universal that the gifted represent a group deserving of comparable special attention similar to that given to groups in the lower range of mental abilities. Nevertheless the persistent drumbeat of organized publicity by many associations and writers is making the public more conscious of the urgency of the problem. Scheifele says there "is nothing so unequal as equal treatment of unequals." Hildreth[4] and others state that a curriculum specially adapted for the gifted can be developed in special classes. Rideout[5] refers to the findings of Lamson, Burnside, and Hollingworth to the effect that the advantages of special classes outweigh the disadvantages. Carroll adds his support and states that special classes actually discourage the development of snobbishness.

Heck[6] reports that New York's experience indicates that gifted students participate much more extensively in out-of-class activities than do other students and that they are more frequently chosen for positions of leadership. He quotes Moskowitz as saying that the program for the gifted "creates an atmosphere, a climate of further encouragement and enrichment that cannot fail to stimulate others to strive for higher standards of achievement." He further notes[7] that such children do not develop habits

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[4]Gertrude Hildreth, Florence Brumbaugh, and Frank T. Wilson, Educating Gifted Children at Hunter College Elementary School. New York: Harper and Brothers, 1952, p. 254.

[5]E. Brock Rideout, "The Gifted Child," Reprint from The Bulletin of the Ontario Secondary School Teachers' Federation, September and October issues, 1954, p. 14.

[6]Arch O. Heck, The Education of Exceptional Children. New York: McGraw-Hill Book Company, 1953, p. 382.

[7]Heck, ibid., p. 387.

of slothfulness and are able to work at the level of their superior ability where instruction, materials, and programs are adapted to their needs in a challenging manner. Goddard[8] indicates that the advantages of special classes lie in better cooperation and the development of better habits. He mentions that when the first group of gifted pupils were selected for the Cleveland class, it took some time for them to orient themselves as they had become lazy in the unchallenging environment of the regular classes. However in the special classes the gifted pupils became keenly interested in the programs.

Practices in Ability Grouping

A number of surveys have been made to determine the extent of special provision for gifted children. In 1952 the Secondary Section of the Office of Education[9] made a survey of twelve hundred high schools scattered throughout the country to determine the administrative provisions, methods of identification, and instructional provisions for rapid and slow learners. Replies were received from 850 schools.

Almost half the schools reported attempts to place pupils in ability groups although twenty-two schools had abandoned the practice of homogeneous grouping because:"parents raised objections," "social stigma was created," "results were not apparent," "provisions were

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[8]Henry H. Goddard, School Training of Gifted Children. New York: World Book Company, 1928, p. 35.

[9]Teaching Rapid and Slow Learners in High Schools. Office of Education. Bulletin 1954; No. 5, p. 7.

inconsistent with the philosophy of the school," and "the staff preferred to adapt instruction to the individual pupil."

Eighteen items on the questionnaire pertained to procedures adopted for rapid learners; about half the schools reported attempts to place the pupils in ability groups of some kind. College preparatory courses were the most commonly reported device employed for the purpose. The provision used by the smallest number of high schools was an accelerated program by which pupils did three years of work in two.

A questionnaire survey of seventy-one Canadian and American superintendents made by H. E. Panabaker, Supervisor of Guidance, Calgary, indicated that:

> The most favored method of providing maximum benefit for superior students is from enrichment with or without some segregation; enrichment involves careful planning, adequate equipment and library supplies, and a limited enrolment of not more than thirty-five and preferably fewer. Acceleration and segregation are practised to a limited degree. Only two or three of the opponents of segregated classes stated they had had experience with them and had dropped them because of demonstrated harmful effects. The majority opposed segregation on philosophical grounds. Those systems which have developed carefully planned schemes involving segregated classes appear to be committed to them.[10]

Gossard,[11] after a study of ten cities, indicated that while intra-class grouping had been in practice for a long time the special class procedure was gaining favor.

Witty[12] also reports a number of Ohio centres with special

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[10] Second Yearbook of the ICEC, Northern Alberta Chapter, no.178, 1954, p. 7.

[11] Walter S. Monroe, editor, Encyclopedia of Educational Research, Revised edition; prepared under the auspices of the American Educational Research Association. New York: The Macmillan Company, 1950, p. 508.

[12] Paul Witty, "Nature and Extent of Educational Provisions for the Gifted Pupil," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 195.

classes in junior and senior high schools: Bellaire had a three-group system; Newark reported special courses as electives; Sandusky had an enriched program for the upper twenty per cent of grades seven to ten; Cinncinnati reported special college preparatory work in the senior grades; and Cleveland had special classes throughout the system.

Witty[13] and Anne Coomer received replies to questionnaires from twenty-nine systems of which twenty-eight said they were using enriched devices such as research, projects, and extensive reading. Special classes were the practice of three, while nine others reported using special classes in certain subjects only; thirteen systems reported having some special classes and some classes by subjects. Nineteen depended on electives and special opportunities for enrichment; research, exhibits, laboratory assistance, library reading, and extra curricular activities were mentioned. Twenty-one of the systems indicated attempts at periodic evaluations. Witty reports[14] a survey by Mills in 1948 in which thirty-three cities replied to a questionnaire concerning elementary provisions for gifted. Six had discontinued special provisions and the other twenty-seven indicated by incomplete descriptions that they provided extra work or creative dramatics: "After examining the responses from various cities and states it is at once clear that provisions for superior children vary greatly and are woefully inadequate.[15]

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[13]Paul Witty, "Nature and Extent of Educational Provisions for Gifted Children," Educational Administration and Supervision, Vol. 37, No. 2, February, 1951, p. 73.

[14]Witty, ibid., p. 73.

[15]Witty, ibid., p. 73.

Freeman[16] says that many experiments point out the importance of training and education in the determination of differences in performance so often attributed to "pure" innate differences:

> ...identical methods of instruction are not of identical value to everyone; since especially adapted methods for individuals at the several levels of ability and performance may prove more valuable in the utilization of individual traits than a uniform method for all.[17]

Beaumont and Macomber[18] do not think that pupils fall into special groups. Some are good in mathematics and not in English. They suggest that to be effective, segregation must be in subject areas. They express the point of view that such special classes may develop felt needs and thus increase interest and motivation.

Rideout[19] remarks that those who have valid objections to segregation may be answered to the effect that partial segregation may take care of special or academic courses while the home-room might take care of the social activities.

The New York Committee[20] notes that the organization of special programs for intellectually gifted children has been attacked because it

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[16]Frank Freeman, Individual Differences. New York: Henry Holt and Company, 1934, p. 137.

[17]Freeman, ibid., p. 137.

[18]Henry Beaumont and Freeman Glenn Macomber, Psychological Factors in Education. New York: McGraw-Hill Company, 1949, p. 209.

[19]Rideout, op. cit., p. 13.

[20]Florence Beaumont, Report of the Committee of the Division of Elementary Schools on the Education of the Intellectually Gifted Child in New York City; Board of Education of the City of New York, 1952, p. 1.

is not consistent with democratic principles. But it is asserted that the failure to provide for the gifted is in itself an undemocratic procedure because it discriminates against one group of individuals. Public education is not limited to the upper percentile of the population and compulsory attendance has brought to school many children for whom special provision has had to be made at all levels; and in this evolution the gifted have been submerged. Earlier graduates of the school system usually had favored home and community environment. They were considered average pupils. But today the school must assume the obligation of providing opportunities for pupils of all levels of ability. The public accepts the need for special education for the handicapped although:

> ...objections in the case of the segregation of the handicapped come in great part from those directly involved. Opposition to special education of the gifted, also, comes from those NOT directly involved - the vast majority of the public. The education of the public in regard to this problem is the joint responsibility of the professional staff and public officials.[21]

Heck[22] suggests that many of the criticisms about special classes are based on misunderstandings; he notes the criticisms that they engender conceit, conviction of intellectual aristocracy, and undemocratic attitudes. Furthermore, he asserts that leaders are developed and that other children lose the educational influence of the brighter pupils and become jealous of the superior students who are set apart. Goddard[23] notes similar

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[21]Beaumont, ibid., p. 1.

[22]Heck, op. cit.,p. 382-387.

[23]Goddard, op. cit., p. 29.

objections and says that conceit does not develop and that snobs are usually people of little ability. A child is not as likely to become conceited in a class of his peers as he is in a regular class where he is the brightest. Though the gifted are not always leaders in a regular class, their removal might give others an opportunity to develop in leadership. Goddard also notes the usual arguments about undemocratic procedures but points out that society forms classifications in actual living and he submits that the only equality a gifted child may get is in a gifted class where his natural resources may be developed. He does not think that the gifted should be left in the regular classes to stimulate others as he questions whether average pupils learn much from the brighter ones anyway; if the gifted are taken out the others are happier and may think it worth while to strive for awards or highest standing. He suggests that with bright children in the regular classroom teachers often overlook the average pupils and the gifted only receive the instruction, although Theodore Henry is quoted[24] to the effect that "if teachers spent the time for the drill which is needed for the average and the dull children they are wasting the bright pupils' time."

Hollingworth commended the establishment of special classes in subject areas. Segregation has always obtained in various forms as indicated in the attempts of parents to set their children apart from others with respect to dress, private schools, and protection from disease. The experiments in the Opportunity Classes and the Terman

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[24] Ibid., p. 30.

Classes bear evidence of Hollingworth's faith in the possibilities of special classes for superior achievement in the enrichment subjects. She says children enjoy the challenge and the freedom provided in library and study projects. She adds that there is no statistical evidence that the others in a regular class need the stimulus of the gifted and that it is possible they may be better off without the superior pupils who generally do the most talking and are left to answer the more challenging questions.[25] Concerning the popular attitude that the gifted progress well without special attention, Hollingworth[26] says that they do, but not in a measure commensurate with their ability. She also notes that selection and segregation obtained in the community life of adults as evidenced in the composition of clubs, business associations, and professional groups.[27]

In many large centres various Honors Schools, Honors Classes or special classes within a school, and special interest classes have been established with a view to securing homogeneous grouping. Earlier high schools may have eliminated the poorer students; consequently in many of those high schools homogeneity may have been more common than was admitted. In the junior high schools of Detroit there are ten or more half sections in each grade so that the top section may be very selective. Throughout the literature on educational provision for the gifted there are examples of attempts to establish homogeneous groups for either acceleration or

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[25]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The macmillan Company, 1926, p. 303.

[26]Ibid., p. 297.

[27]Ibid., p. 305.

enrichment or for both.

There are many writers who insist that homogeneity cannot be secured in any group. Freeman has been very emphatic on this point. The Encyclopedia of Educational Research carries this statement:

> Complete homogeneity ... could be secured only when every pupil in the group is equal to every other pupil in ability, age, industry, previous experience, and all other factors which affect learning... Even with all factors equal, the progress of the individual in the group would be equal only if each received identically the same motivation and if each were presented with the same materials in equal quantity... Complete homogeneity has one pupil in a class... so between the two extremes lies the practice.[28]

Adams[29] also asserts that individual differences will exist in homogeneous groups. Garrison indicated that homogeneity is hypothetical and because of the variability that obtains it is common to have intra-class grouping in regular classes where the more able have opportunity for leadership. He emphasizes that planning is very necessary here as the gifted would get lazy and superficial as they are less challenged. Wilson[30] urges that we do recognize "brains" and that special classes do not hurt socialization. He suggests that the "traditional regimented school program makes many children unsocial and a few of them anti-social." Garrison[31] states that "the line of demarcation between gifted, normal

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[28]Henry J. Otto, "Elementary Education -III: Organization and Administration," Encyclopedia of Educational Research, Edited by Walter S. Monroe, New York: The Macmillan Company, 1950, p. 377.

[29]Fay Adams and Walker Brown, Teaching the Bright Pupil. New York: Henry Holt and Company, 1930, p. 40.

[30]Frank T. Wilson, "Reply to Max Marshall," Educational Administration and Supervision, Volume 41, February, 1955, p. 111.

[31]Karl C. Garrison, Psychology of Exceptional Children. Revised edition; New York: Ronald Press Company, 1950, p. 251.

and dull must never be sharply drawn." But he favors special classes because of their greater potentiality in creating interest and motivation and their approximation toward ability grouping.

Dr. John Goodlad, Professor of Education and Director of Teacher Education, formerly at Emory University and Agnes Scott College makes the statement:

> For most teachers, to secure a class of children closely approximating one another in all areas of development would be the realization of a teaching utopia. However, Keliher questions the social desirability and Elsbree doubts the feasibility of obtaining any such condition of general homogeneity.[32]

Studies of Special Classes

Hollingworth[33] reported various studies of special classes; Race reported a study of a special class in Louisville, Kentucky, that made twice the progress of other groups. The pupils in the special class had an I.Q. range of 120-168 with a median of 137. Specht in 1919 reported on a Terman class set up in 1916 at Public School Number 64 Manhattan. Here a class of I.Q. ratings above 120 progressed two and two-thirds terms each term; Coy's study in 1923 indicated that a gifted group in Columbus, Ohio, made rapid achievement.

Goddard[34] concluded from his studies of the Cleveland Schools that

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[32]John L. Goodlad, "Research and Theory Regarding Promotion and Nonpromotion," Readings for Educational Psychology; edited by William A. Fullagar, Hal. G. Lewis, and Carroll F. Cumbee; New York: Thomas Crowell Company, 1956, p. 347.

[33]Hollingworth, op. cit., pp. 278-279.

[34]Goddard, op. cit., p. 119.

the special classes provided excellent enrichment under very favorable conditions. The children were interested, motivated, and challenged, and they liked learning under those conditions. He added that advantages had accrued from the use of special classes and there was no need of maladjustment when the children went into the high schools. Reports from graduates of the schools are quoted in Baker's[35] writings to the effect that there were more scholarship awards, more independent and critical thinking, more leisure time activity, more self-expression and that neither health nor eyesight were adversely affected by the experience. Baker[36] asserts that the arguments against segregation do not materialize in the Cleveland program where the pupils have been placed with those of similar mental age and interest.

Sumption's[37] study in 1939 of the 328 graduates of the Cleveland Work Classes involved sending questionnaires to 1120 graduates of the period from 1920 to 1939. Sixty-one from the regular classes replied and 263 who had had experience with special classes; some of these had had two to three years experience and others had been in special classes from one to twelve years with an average of 4.6 years. Those who had the most experience with the Major Work Classes indicated superiority in contentment, social adjustment, scholastic awards, valuable hobbies, and

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[35]Harry J. Baker, Introduction to Exceptional Children. Revised edition; Toronto: The Macmillan Company, 1953, pp. 292-293.

[36]Baker, ibid., p. 291.

[37]Merle R. Sumption, Three Hundred Gifted Children, New York: World Book Company, 1941, pp. 62-128.

worthwhile activities pertaining to vocations, professional and leisure-time reading, and higher education. There was little difference relating to skills, health, or attitudes toward health. But the graduates of the Major Work Classes had good eyesight despite the extra work. They stated they had liked the free discussion, field trips, and the opportunities for the development of creativity, initiative, tolerance, and leadership.

Sumption refers to other evaluations that had been made in 1929, 1933-34, and in 1937. From these studies it appears that the students of the enriched Work Classes surpassed the students of the regular classrooms in achievement norms.

Barbe[38] reports on questionnaires received from 456 graduates of Cleveland Work Classes in the period of 1938-1952. Ninety per cent reported approval of the classes because of the curriculum differences, individuality, and freedom from regimentation. Most of them replied that they thought they were well adjusted and that they were satisfied with their vocations.

Witty[39] reports a study by William P. Schwartz of a comparison of two groups of bright children; one group was taught in a special class and the other group in regular classes. The pupils were equated on the bases of grade, age, sex, intelligence, and socio-economic backgrounds.

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[38]Walter Barbe, "Evaluation of Special Classes for Gifted Children," Exceptional Children. Vol. 22, No. 2, November, 1955, p. 62.

[39]Paul Witty, "Nature and Extent of Educational Provisions for the Gifted Pupil," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 189.

At the end of four months the gifted group excelled in all grades and in personality traits. Hildreth[40] remarks that Schwartz favored separate classes as the best solution for the education of gifted children.

Garrison[41] cites a study by A. Dvorak and J. J. Rae regarding two classes of twenty-seven beginners selected from the top of a list of 110 selected pupils. One class received special instruction. The study concludes that: "...homogeneous grouping will tend to enhance educational achievement when accompanied by provisions for the abilities and needs of the groups concerned."

In Cedar Rapids, Iowa, a program of enrichment in the regular classroom has recently been provided in the grades from four to seven; control groups in the same classrooms were set up in an evaluation project.[42]

In the high school a homogeneous group in grade eleven was established for the study of United States history and American Literature for a two-hour period each day. Supplementary materials and resources were supplied as well as a teacher well-informed in the subject matter of the course. The committee supervising the experiment chose three elementary schools in which they provided experimental and control groups for the evaluation of their enrichment programs. They chose one senior high school

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[40] Hildreth, op. cit., p. 253.

[41] Garrison, op. cit., p. 251.

[42] Clyde Parker, "A Measured Experiment with Mentally Advanced Children," The American School Board Journal, Vol. 133, No. 6. December, 1956, pp. 23-24.

for the homogeneous grouping and another senior high school to serve as control. In October and in May the groups were tested for mental maturity, achievement, and personality.

In the elementary school experiment it was concluded that the normal achievement of the mentally advanced pupils was not disturbed adversely and many pupils showed twenty-two months of advancement over normal achievement without evidence of any detrimental effect on adjustment and personality. A further conclusion was that the average children benefitted more in the classrooms where provision was made for the gifted than average children did in the control rooms. Some teaching techniques which work very effectively with advanced children may be applied profitably to average children.

In the high school it was concluded that the homogeneously grouped pupils excelled significantly and that no adverse effects were indicated in adjustment or personality. The general conclusion from this experiment is that under homogeneous grouping and with a special program, mentally advanced children show significantly higher achievement at both elementary and high school levels.[43]

Roberts emphasizes that in her observations of the Philadelphia High School for Girls she found no evidence that segregation developed conceit. She stated[44] "that many of the arguments against segregation had been answered in a practical way in the manner in which the girls showed

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[43]Parker, ibid., p. 24.

[44]Helen Roberts, "Current Trends in Education," California State Department of Education, Sacramento, October, 1955, p. 12.

a love of learning and a sense of obligation to serve society."

Theron Freese[45] states that a Long Beach committee questioned the validity of homogeneous grouping and so they scattered the superior pupils through various rooms of each grade level. Evaluation indicated that no benefits had accrued. After 1953 many enrichment practices were instituted along with some acceleration and the principals were asked to evaluate the results.

Gross[46] says that studies have revealed that gifted students' achievements in basic learnings in the special classes are not significantly greater than those of children of the same age and ability; but he adds that there is a greater growth in the creative arts. He states that organization of special classes is no guarantee of improved education. He refers to practices in homogeneity that range from small intra-class groupings to completely separate specialized schools. He recommends partial segregation for students who may be able in some subject, as social studies, and weak in others. He questions the claim that homogeneous classes give training in leadership and doubts that pupils would get the common man relationships or the knowledge of how to act so as to gain the confidence of those to be led. He states that: "...certain ungraded groupings of gifted children even with age spreads of four or five years have also been acclaimed as successful."[47]

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[45]Theron Freese, "Challenge of the Gifted Child," Educational Leadership, Volume 11, December, 1953, pp. 156-159.

[46]Richard E. Gross, "The Challenge of Social Education for the Gifted," Social Studies, Volume 45, October, 1954, pp. 199-204.

[47]Gross, op. cit., p. 200.

Long[48] indicates that segregation saves other teachers the task of planning for the gifted in their classrooms and that the pressure of competition is keener in special classes. He adds that social development may be threatened by the resentful attitude of others whose contacts in general activities may do more harm than good.

The opponents of homogeneous grouping, according to Adams and Brown,[49] state that heterogeneous grouping provides a social situation in which the slow pupils receive help and encouragement from the bright pupils who in turn acquire patience with others. Pupils learn from each other in the variety of lesson assignments. They claim that homogeneous grouping stratifies society. But Adams supports homogeneity as being democratic because it provides equality rather than identity of opportunity.[50] The pupils are challenged and are less likely to develop complexes concerning their peers. It is also submitted that teaching aims and methods are better and that the gifted do not have to endure teaching methods unsuited to them.[51] Adams also notes the administrative problems involving the type of teachers and the flexibility of classes. The New York Committee[52] indicated that homogeneous grouping was more expensive and more difficult to organize and supervise.

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[48]J. A. Long, "The Problem of the Gifted Child," Canadian Education, Volume VIII, No. 2, March, 1953, p.23.

[49]Adams and Brown, op. cit., p. 37.

[50]Ibid., p. 39.

[51]Ibid., p. 46.

[52]Beaumont, op. cit., p. 14.

It is fairly obvious that there is no unanimity regarding what should be done for the gifted. Grant[53] remarks that at the First International Workshop on Education held at Syracuse University in 1955, an inconclusive discussion centered on the problem. Krueger[54] points out that there is not sufficient evidence yet to warrant unqualified endorsement of segregation.

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[53]Harry M. Grant, "The First International Workshop on Education," Education, Vol. 2, No. 4. Toronto: W. J. Gage and Company, p. 14.

[54]Louise Krueger and others, "Administrative Problems in Educating Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 262.

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PART III

PROGRAMS IN CURRENT PRACTICE

INTRODUCTION

A review of the programs now in practice shows that numerous attempts are being made in different countries to meet the needs of gifted children. The United States has established a pattern for educational thinking on this subject. Educators in Canada, recognizing the problem, have instituted special programs. Selective education in many countries of Europe demonstrates recognition of mentally superior students and efforts to make provision for them. In Australia provision has also been made to meet the needs of children of high mental ability.

The intention is to describe some of the programs in practice in these countries. Several of them are the results of many years of thoughtful experimentation. Other centers have followed the example set and established similar arrangements. Acceleration or enrichment characterize the practices and in a majority of the schools there is a combination of these. All the administrative devices, indicated in earlier chapters, appear among the provisions for there is no common agreement about them. Some educators claim that the objectives can be achieved in the regular classroom while others insist that effective enrichment or rapid progress can only be accomplished through homogeneous or ability grouping on a partial or full time basis.

Besides the actual classroom practices such resources as museums,

libraries, art studios, and choirs are utilized through the cooperation of communities. Industry has contributed resource aid and joined educators in making recommendations and providing financial aid. Science Clubs and Talent Searches have attracted public attention and encouraged student interest. Industrial foundations, scholarships, and awards have become a part of the total program of the education of superior children.

Beginnings have been made in providing special training for teachers of gifted pupils. Psychologists and counsellors are associated with many of the schools and their work has contributed to an increasing demand for similar service for other able students.

CHAPTER I

CANADA

Various localities in Canada have, for many years, recognized the problem of educating their gifted children. Some departments of education and many city school boards have appointed investigating committees and established definite programs. It is proposed to outline the existing practices in the major centers in each of the provinces active in this area.

Alberta

Calgary undertook an acceleration program in 1954 for Division I which permitted superior pupils beginning Grade I in September to finish Grade III in two years. It was intended to allow eight months for Grade I and six months for each of Grades II and III.

In April, 1955, following a series of intelligence and achievement tests, 250 Grade I pupils were recommended for inclusion in the accelerated program; 236 were promoted to Grade II on May 1. Parents had declined to have the other fourteen accelerated. Eleven pupils were later withdrawn after illness affected school attendance adversely. Nine more were accelerated within three months and seventeen left the city. In December, 1955, Dominion Standardized Reading Tests in Vocabulary and in Paragraph Work were administered to the remaining 217 pupils. Nineteen marginal cases did not score a grade equivalent of 3.0 on each of the tests or did not score an average grade equivalent of 3.0 on the two tests. Parents

consented that ten of these should remain with the top Grade II pupils and the other nine continued with the accelerated group which moved into Grade III on January 1, 1956. A comparison of achievement of the accelerated group and the regular Grade III group is to be made in June on the basis of a comprehensive testing program of all Grade III pupils.[1]

When principals reported on test results they were asked to report any symptoms of abnormal emotional or social behavior which, if continued over a period of time would make it difficult to adjust satisfactorily to the accelerated program with its increased academic pressure.[2]

Conferences with the parents constituted an integral part of the procedure. Parental consent was secured for enrolment of the child in the program, and pupils might be withdrawn at the parents' request.[3]

According to the superintendent of schools, the Calgary acceleration program is not a forcing one; it is not intended that the child should put forth an extraordinary effort or that he should center his efforts on his school progress to the exclusion of normal cultural and sports activities.[4]

Edmonton school staffs have devoted time and study to the identification and needs of gifted children. As yet little has actually been

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[1]Report on Division I Accelerated Pupils of Calgary Public Schools, January 9, 1956.

[2]Panel Discussion on "The Gifted Child" at the Thirtieth Annual Convention of Edmonton Teachers, February 7, 1956, p. 3.

[3]Ibid., p. 3.

[4]Statement of the Calgary School Board on the Accelerated Program, October, 1954, p. 5.

accomplished in making adequate provision for them.

Westminster School, restricting acceleration to the most gifted, has promoted to the next higher grade only four students in the past five years. This has been done only after careful consideration by the staff of past and current achievement, home background, and ability of the students concerned. The parents and students have indicated approval and the accelerated pupils have maintained a high degree of interest and achievement. No provision has been made for enrichment although some experimentation in homogeneous grouping will be attempted in Grade IX in 1957.[5]

The Highlands School of Edmonton has five rooms each of Grades VII, VIII, and IX. The top five pupils from each room are chosen to make a special class of twenty-five in each grade. An enrichment program in these special classes has resulted in better pupil reports, better teaching, and improved achievement.[6]

> Elementary instruction in our schools, in several ways make use of group organization established on a basis of pupil potential ability. Facilities, particularly books, have been provided to meet individual needs. These policies are being extended into the Junior high school. The Junior high school, in addition to this, encourages participation in an extensive extra-curricular program. In the Senior high school some academic enrichment courses have been offered. This is quite limited. More academically capable students in the high school are encouraged to select the maximum number of courses.[7]

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[5]Letter from Principal K. Stewart, Edmonton, February 22, 1957.

[6]Report of Government Inspection of the Highlands School in January, 1957.

[7]Report by the Edmonton School Board for a Survey conducted by the Canadian Education Association and published in May-June, 1955 Newsletter of the Canadian Education Association.

There appears to be evidence of differentiation in the reading in the elementary school. The scope in the enterprise also provides opportunity for differentiation of instruction.

Social promotion in elementary schools will likely continue and this factor, along with increased holding power, has extended the range of individual differences. The increasing growth of the comprehensive high school, with its heterogeneous population, complicates the problem of giving an appropriate educational program to every pupil.

It is common practice to provide more credits for the students of high ability and more electives for average-ability students. But a large unsegregated group follow the ill-defined lines of these objectives simultaneously. One teacher in an Edmonton high school says that: "... at the risk of being undemocratic we must adopt a policy of selection of those students who are to receive the benefits of higher education."[8] It is reported that two high schools in Edmonton have homogeneous grouping in Grade X.[9] Commercial schools group by ability in subjects such as shorthand. Special electives such as Mathematics 31 are provided for the needs of superior pupils.[10]

Secondary schools in Alberta are commonly not large enough to establish special classes for gifted students. But the high school

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[8]R. V. Clark, "Time for a Change," The Alberta Teachers' Association Magazine, Volume 36, No. 6, February, 1956, p. 7.

[9]Panel Discussion, op. cit., p. 3.

[10]Panel Discussion, ibid., p. 4.

program does offer sufficient exploratory courses to interest the student seeking high school graduation and at the same time it provides enrichment subjects for matriculants. In spite of advice from principals and guidance counsellors most high school students wish to choose the academic electives and the less able hamper the maximum achievement of the better students. Some schools attempt to organize the classes for general diploma or for matriculation requirements. It is reported that one high school in Calgary has arranged homogeneous grouping of Grade X students.[11]

Edmonton Separate Schools are conducting a survey regarding gifted pupils. The claim is made that considerable enrichment is effected in elementary and junior high school rooms although no systematized program has been worked out. In 1956 a grade seven pilot group was selected and arrangements were made with the Provincial Correspondence Branch to develop an accelerated program in the basic subjects. Counselling is believed to have increased the number of awards won by bright students in the high schools.[12]

Other centers in Alberta have attempted some provision for the superior pupils. Camrose,[13] in 1956, established a room for Grade V and top Grade IV pupils. In the previous year a room of Grade IV and top Grade III pupils was operated. Medicine Hat[14] is reported to be planning

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[11]Panel Discussion, ibid., p. 3.

[12]Panel Discussion, ibid., p. 5.

[13]Panel Discussion, ibid., p. 3.

[14]Panel Discussion, ibid., p. 3.

a three-stream program for Grades I-VI. Vermilion[15] has made some provision for more rapid progress and enrichment in Grades II, IV, and VI by placing the weak pupils from these classes in segregated groups. Wainwright[16] has placed in a special room pupils of Grades III, IV, and V who at the end of June were not ready for advancement; these pupils work at the top of their respective grade levels for another few months before being advanced to the following grades, at which time pupils from regular classes may be accelerated to join these Division II children.

British Columbia

In the secondary schools there appears to have been provision for more able students in that it is reported that nineteen per cent of the university entrants had taken four or more majors instead of the required three. While it is reported that fourteen per cent of the university program graduates had been accelerated at least one year it is assumed that this was done in the elementary school, as acceleration in the high school is very uncommon.

Seventy schools reported they placed the gifted students of the same grade level in one class. Fifty-eight others grouped gifted students within a class for instructional purposes. Fifty-four schools reported that they consciously selected teachers for the classes of gifted students. It was

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[15]Panel Discussion, ibid., p. 3.

[16]Report of the Superintendent of the Wainwright School Division for 1956, p. 16.

further reported that in eighty-three schools counsellors gave special attention to the gifted.[17]

All secondary schools indicated they attempted some enrichment in the form of differentiation of assignments, research, greater use of library facilities, advanced classes, and an increase in the number of majors, clubs and seminars. Superior students take four or five of the advanced courses instead of the usual three required for university entrance.[18]

From a British Columbia Survey Report for 1954-55 it would appear that at least half of the schools enrolling about seventy per cent of the elementary pupils are aware of the problem and are trying to do something about the gifted children in their systems.

Methods of identification of superior ability are not used uniformly. From the many types of tests used the range of I. Q. ratings is from 100 to 150 with the median at 120. Again, besides various scholastic aptitude tests, teachers' achievement tests and subjective ratings are used.[19]

Special classes were reported in 178 schools which assigned gifted pupils to one class that might contain two or more grades. Fifty-three schools reported assigning specially chosen teachers to such classes.[20]

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[17] F. P. Levirs, Precis of the Report on Treatment of Gifted Children in the Secondary Schools of British Columbia, 1955.

[18] F. P. Levirs, ibid.

[19] F. P. Levirs, ibid., p. 1.

[20] F. P. Levirs, ibid., pp. 2-3.

In a heterogeneous arrangement 214 schools grouped the gifted children of several grades within one class for instructional purposes; in some cases the grouping was for all subjects although in the majority of these classrooms the groupings were in specific subject fields such as literature and language, arithmetic, social studies, science, or spelling.

Enrichment was the usual policy in both special and heterogeneous classes. Reported procedures included greater use of library, reference and reading materials; more thought-provoking assignments; research; enlarged units and broadening of the course; individual and group projects; provision of opportunities for responsibility and leadership; and special assignments of abstract nature planned to develop interests and to engage the greater ability of the gifted. Many schools claimed that they challenged the gifted to improve their standards of achievement to the level of their abilities. Some schools gave special recognition to outstanding academic achievement by using freed time from drill periods for individual reading.

Recognition was given to acceleration which was incorporated in the official promotion policy of the Department in 1948 with the condition that a child be accelerated no more than one year in the first six, and that his work should be enriched as well.[21] Reports by 286 schools indicated acceleration in Grades I - VI. Many objected to acceleration until Grade II was reached.[22]

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[21]Levirs, ibid., p. 3.

[22]Levirs, ibid., p. 3.

Manitoba

In 1954 Winnipeg established three special classes known as Major Work Classes for gifted pupils above grade three. Transportation is provided from various schools for the pupils that attend the four classes now operating. It has been the practice to have two grades in a room. The pupils in the special classes are not isolated from others for such school activities as music, physical education, or sports.

Enrichment is the keynote of the Major Work Classes. Intensive work on language and literature, writing plays, making reports to classes, reviewing books, writing stories, articles and editorials for school newspapers, reading reference material, are all features of the enrichment program. The work is planned in large units in recognition of the longer interest span of the pupils. Reading interests are encouraged in the fields of biography, history, travel, science, and fiction.

Teachers are carefully selected and asked to have at least one summer session of the study on gifted children. A bursary is provided for this purpose.

In the socialized procedure the teacher, as a participant and director, attempts to establish in the pupils the ability to think and to develop their latent capacities. Balanced programs are emphasized.

Teachers suggest names of Grade III pupils who are then tested. Those rating at least 130 I.Q. on the Binet tests are examined by the Child Guidance Clinic whose report, combined with that from the school, constitutes the basis for admission into the Grade IV special class in

September.[24]

New Brunswick

In November, 1956 the county school system in New Brunswick surveyed its educational provisions for superior pupils. In the single grade rooms a haphazard system of enrichment was noted in the form of extra reading or individual projects; others merely helped the teacher in odd tasks.

In the multiple-grade room some enrichment and more acceleration was obvious as pupils of superior ability did some of their own grade work and some of that of the grade ahead simultaneously until such time as they were officially promoted. Homogeneous grouping was favored. In one school with rooms of two grades each, a teacher taught the select pupils in Grades I and II one year and the next year the same pupils in Grades II and III.[25]

Ontario

In Hamilton, in 1938, the Unit System of Promotion was introduced in the primary grades to provide for individual differences of pupils. The practice grew and in 1949 the plan was adopted for all grades from I - VI so that there would be three units of work to be done in each grade, making eighteen units in all. This allows slow children to take two or fewer units

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[24]"Major Work Classes; Meeting the Needs of the Bright Child," Report of the superintendent of the School District of Winnipeg, No. I, February, 1956.

[25]The Forum of New Brunswick Education, Volume XVII, No. 5, January, 1957.

a year and superior pupils may take four or even five units a year. However, there was a limit of acceleration of one year in the six grades of work. Enrichment should then of course be the alternative for the gifted children. Actually the term 'grades' has been replaced by the term 'Units of Work.'[26]

In exceptional cases provision is made for another year of acceleration from Grade VI to Grade VIII. Half of the day in senior public school grades is devoted to English, mathematics, and social studies in the home-room. For the other half of the day the students circulate among the special rooms for courses in art, music, science, shop, library work, and health education. Definite enrichment is provided in this manner as well as in extracurricular activities and clubs.[27]

Classes are reorganized annually in June for the September classes, with a view to getting as few units as possible in a room, and thus eliminating the need for many transfers from one room to another throughout the year. Two types of classes are common: the class with the fast learners in the lower unit so that the group tends to become more homogeneous as the year advances, and, secondly, the fairly homogeneous class which tends to spread as the year advances.[28]

Continuous evaluation and recording are practised, and the principal

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[26]Hamilton Board of Education Report on "The Unit System of Promotion in the Public Schools of Hamilton, July 16, 1954, pp. 1-2.

[27]Letter from Director of Education, R.A. Riddell, Hamilton, February 6, 1956.

[28]Hamilton Board of Education Report, op. cit., p. 5.

is urged to aid the teachers so that promotion at the end of each unit of work will be effected. The secondary schools of Hamilton have for some time provided that the gifted take five options rather than the usual four; the less able students do not usually take languages. Hill Park Secondary School attempted, in September, 1955, to classify the Grade IX students in three groups so that the top group would consist of those who are potential Grade XII graduates for whom it is expected special educational provisions may be made.[29]

In Ottawa a committee was appointed in September, 1954, to identify gifted children and to provide for their fullest development.[30] Enrichment had been afforded those of superior mental ability and arrangements had also been made for acceleration without omitting the work of the grade.

Since 1940 teachers have had knowledge of the I.Q's of all pupils. The Committee reported that teachers selected the students whose cumulative records showed high I.Q. ratings and listed their special interests, habits, abilities and disabilities, attitudes, home conditions, and personality. They then sought to provide opportunity for all-round growth by individual or group plans. Included in these were advanced assignments, encouragement of better use of spare time in reading, creative writing, painting, verse collecting, or mural work. Pupils were encouraged to take leading parts in assemblies, clubs, class newspapers, concerts, and special interest

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[29]Letter from R. A. Riddell, op. cit., p. 3.

[30]Study on Gifted Children. City of Ottawa Public School Board, March, 1956, p. 3.

groups. Attempts were made to stimulate their reasoning power and greater achievement. Plans also included the development of a more flexible curriculum with deletion of unnecessary drill.

The Report was submitted on March 2, 1956. In the fall definite provisions were in evidence as indicated in a statement in November, 1956.[31]

The most able were accelerated so that they might complete the work of Grades III and IV in one year under the same teacher; in other cases the pupils may take the first four grades in three years under one teacher.

Enrichment is provided in schools having four or five classes of the same grade; here the superior pupils are placed in one class. In the intermediate grades a three-stream organization makes provision for the more able.

There are two special enrichment classes in Grade V composed of pupils from various parts of the city; careful selection is based on parent interviews and reports of school psychologists. The classes have outstanding teachers who have had wide experience and special training in the psychology and methods pertaining to gifted children. Enrichment is stressed rather than rapid progress. These pupils are expected to spend four years in grades five to eight under the same home-room teacher. They take the regular course and do considerable extra work in committees, reports, discussions, and round-table conferences.[32]

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[31]Ottawa Public School News, November, 1956, p. 4.

[32]Ottawa Public School News, op. cit., p. 4.

> It is assumed that all types of segregated classes for the gifted will mingle freely with the total school population in the school yard, regular assemblies and concerts. They must be assigned their share of the usual school responsibilities as messengers, monitors, and patrol officers.[33]

Upper Canada College under the principalship of A.G. Stephens, M.A., identified able pupils by group and individual I.Q. tests and tests in arithmetic and English. If a boy is ready to leave Grade VIII at twelve years or less he goes into a special Grade IX class or even into a special group doing Grade X work. This preparatory course provides for acceleration as some of these pupils may move directly into Grade XI work. At the top is the Sixth form with much enrichment for those able pupils who intend to enter university and are still young for matriculation.[34]

The Village of Forest Hill West Preparatory School in Toronto had twelve gifted children in a class of thirty-four in 1955. According to the teacher, Miss Marion Allen,[35] these twelve children were ardent participants in extracurricular activities, such as sports and school orchestra. The school is beginning a study of the gifted in cooperation with the Talented Youth Project.

Brant Street School in Toronto believes its experiment with three-stream grouping in the primary and junior divisions has been very effective for the needs of the pupils with varying ability, and further, that the

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[33]Study on Gifted Children, op. cit., p. 28.

[34]G. Gault, "They Have Taken the Curse off the High I.Q. at Upper Canada College," School Progress, April-May, 1951, p. 26.

[35]Letter from Marion Allen, Toronto, February, 1957.

pupils appreciated the values accruing.[36]

In 1954, at the request of the Toronto Board of Education, reports were presented concerning education for the gifted children in the public and secondary schools of Toronto.

Acceleration is effected in many public schools by the completion of the work of Grades II, III, and IV in two years. In mixed grades (multiple grade rooms) acceleration amounting to a full grade in a single year is sometimes possible although not usually desirable. Generally acceleration is limited to one year distributed over several grades of the elementary program and skipping is rarely practiced.[37]

Enrichment is provided in senior grades by allowing pupils to do contract assignments of work. Hobbies, crafts, and other creative activities are encouraged as enrichment for those who have earned the time for such supplementary activities.

In certain Toronto schools a number of pupils of high learning capacity and superior achievement were selected from Grades V and VI for group activities for an hour each week under the guidance of the vice-principal. Biographical studies, gathering reference material and preparation of maps for oral reports, were carried out. Some of the more able of this group prepared and delivered talks on traffic safety.

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[36]Margaret A. Robinson and Brant Street School Staff, "Brant Street School's Experiment in Three-Group Organization," Study Pamphlets in Canadian Education, Number 4. Toronto: The Copp Clark Company, Limited.

[37]"A Study of Education for the Gifted Child in Public School". Toronto Public School Board, 1955, p. 15.

Opportunities were given for dramatization, public speaking, organizing material, and working with children of equal ability in purposeful enterprises. Some individuals made significant social adjustment through group work. A very large number of suggested activities for enrichment were listed in the report.

> This working together with other children of equal ability and enthusiasm in purposeful enterprises provided some very valuable learning situations. Considerable progress was made in applying new media, such as India ink, lettering pens, colored and corrugated papers, etc., in organizing material, and in public speaking, all of which would seem to be most desirable experiences for gifted children. But the most noteworthy achievement observed in this experiment was the social adjustment made by certain individuals through group work.[38]

In the Toronto Secondary Schools acceleration and enrichment have been practised. The gifted are identified at the beginning of high school; pupils of exceptional ability in all subjects are accelerated through three years of mathematics in two years with some enrichment.[39] In Grade XIII they will then take Upper School Algebra as a preparation for engineering courses at university.

Homogeneous grouping is effected with some gifted high achievers who may take an extra option or an additional subject such as Spanish, typewriting, Greek, or biology, even after hours. Gifted pupils are encouraged to seek extracurricular activities and positions of leadership therein.

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[38] A Study of Education for the Gifted Child in Public Schools, op. cit., p. 16.

[39] C. C. Goldring, "Making Provision for the Gifted Child in Secondary Schools," The Canadian Superintendent, Volume 4, May, 1956, p. 45.

Some superior pupils who are doing the regular program in less time are permitted to take music or art and, if successful, may add German to the extra list in the second year.[40]

A number of studies have been instituted pertaining to the under-achievement of pupils identified as superior. A study was begun in 1955 on Grade IX pupils to determine whether their achievement was in keeping eith their ability. A similar one was carried out earlier on thirty-two gifted students from sixteen high schools.

In Grades X, XI, XII, and XIII gifted pupils are encouraged to take two options in addition to the required three. Thirty extra-curricular activities provided by the school are largely directed by the gifted pupils. Provision for the gifted is most conspicuous in Grade XIII where possible first class honor standing in twelve papers contrasts with the minimum of fifty per cent in eight papers.[41]

A special provision is made for children who have shown outstanding achievement in the elementary school. This applies particularly to pupils of foreign parentage who may be discriminated against by the intelligence tests. Pupils of this type who have not qualified by a rating of 130 I.Q. are individually interviewed and considered for segregated classes.[42]

Special counselling, beginning at the Grade IX level, is given to

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[40] Goldring, ibid., p. 45.

[41] Goldring, ibid., p. 46.

[42] Goldring, ibid., p. 46.

all students who appear to have the potential for university entrance scholarships.[43]

London provides for acceleration and enrichment. In the commercial department acceleration enables students to graduate in from four to eight months less than the usual four years. For many years provision has been made for able pupils to finish the work of Grades I - IV in three years. A special class is formed of those Grade IX students with high I.Q. ratings who also have been rated outstanding by their elementary school principals. This class was formed in 1954 and in its second year had completed the work of Grades IX and X and made a start on the Grade XI program.

Since 1928, London has also had special classes or Advancement Classes operating to give enrichment to pupils who have spent three years in Grades I - IV and who have a rating of 130 I.Q. These people proceed through Grades V - VIII in four years of unaccelerated courses enriched by typewriting, conversational French, and more dramatics, public speaking, and physical education than is provided in the regular classroom.[44] Good library facilities challenge considerable individual effort in reference study work. Teachers instruct less and the students do more individual and group projects. Field trips are included in the programs.

In the collegiate institutes able students may take an extra option or one or two extra subjects from a higher grade. By a program of individual

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[43]Goldring, ibid., p. 46.

[44]Letter from Director of Education, G. A. Wheable, London Board of Education, February 7, 1956.

time-tabling, students with special abilities in a subject are scheduled so that they may take an additional course in an enriched program. Mathematics, science, and languages are the usual subjects so treated.

Consideration is being given to a three-stream organization in high school: one for those intent on university work; one for high school graduation with no further scholastic intentions; and one for the slower learners who may tend to stay in school longer.[45]

In Windsor the work of each of the first three grades is divided into three units, thus making nine units for a three-stream grouping. Superior children take four units each year and in the third year take the ninth unit and proceed to the end of Grade IV.[46]

Quebec

The Montreal Catholic School Commission conducted a five-year study which culminated in September, 1952, in the institution of a well balanced curriculum which is sufficiently flexible to meet the various intellectual abilities of the students. It challenges the brilliant child to the limit of his potentiality so that as a College Preparatory graduate he may receive a senior matriculation certificate leading to both Arts and Science Faculties of the University, while the average student may qualify as a junior matriculant for one or the other of these faculties. Senior matriculation

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[45] G. A. Wheable, op. cit., p. 2.

[46] C. S. MacLeod, Address at Kellogg Short Course, Alberta University, May, 1956.

is for boys only.[47] In each of the first two years of junior high school superior pupils take physical education and seven constants as well as three electives. Average students take six constants and two electives. In the third and fourth years of senior high school, the average students take five constants and four electives in the General Course leading to junior matriculation. The superior student takes ten constants and one elective in each of his third and fourth years of the College Preparatory course leading to senior matriculation. Latin is included throughout the four years of this course. The electives in the general course include art, geography, history, industrial arts, household science, latin, music, mathematics including elementary algebra and elementary geometry, and a science course. The electives in the College Preparatory Course include music, general history, geography, intermediate algebra, and trigonometry. Science and Latin are constants in this course.

The high schools provide a Commercial course of four years. Then there is a special class open to holders of junior matriculation certificates only.[48]

> Students admitted to the first year of High School are tested by the Guidance Department and on the basis of the tests and the elementary school report they are placed in homogeneous classes with an enriched program (in this case, not more of the same thing) and specially chosen session teachers through the four years of high school.

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[47]Circular and Timetables issued from the office of the Montreal Catholic School Commission in 1954.

[48]Circular and Timetables, op. cit.

This enrichment entails a certain amount of acceleration in Grades X and XI because in order to continue the enrichment procedure it is often necessary to anticipate Grade XI work in mathematics, science, Latin, and sometimes in French in Grade X and to anticipate in Grade XI some of the work in the same subjects in Grade XII.

The same spirit of enrichment inspires our direction of the Commercial classes ... better Commercial classes are given some academic subjects such as chemistry or biology or algebra, if it is believed that the standard of the pupils warrants this treatment.

Although University requirements exact a minimum of ten secular subjects for matriculation, it is not uncommon for the students in the top classes to graduate with university credits of twelve to fifteen secular subjects in either or both Arts and Science courses.

We are more than satisfied with the results achieved to date. Not counting scholarships won at Loyola and St. Francis Xavier University in Antigonish, one of the classes of the high schools has taken as high as nine out of fourteen scholarships at McGill and has never, to date, taken less than three.[49]

Saskatchewan

In Saskatoon, enrichment was provided in special classes which were organized in 1932 on the recommendation of Dr. C.A. Oulton, who worked with Dr. S.R. Laycock in their organization. Children are brought from all over the city at their own expense to attend the school where the two classes are located. A school psychologist selects pupils over I.Q. rating of 120 on Otis Alpha tests given in Grade III. Classes have operated in grades four and five, starting each September. But in September, 1956, it was decided to recruit pupils for the special class for one grade only so that henceforth the special class will consist of Grade V pupils who will continue with the same teacher for four years to the end of Grade VIII.

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[49]Letter from Associate General Director of Studies, John T. McIlhone, Montreal Catholic School Commission; February 6, 1956.

Some provision is made for them to finish the four grades in three years if they have not been previously accelerated. There is no skipping. This form of acceleration is a recent development.[50]

Emphasis has been on enrichment consisting of wider reading, dramatics, art, English grammar, conversational French, creative writing, and a more thorough and intensive social studies course. As distinguished from regular class work in reading, arithmetic and spelling there is a greater amount of class discussion, opportunities for original work and consultation of a greater variety of reference material, and also opportunities for panels and outside speakers.

The classes representing about sixty-five pupils have operated since the inception of the plan and it is expected to have a third class established in 1957. The total school population of 9,000 has doubled since the classes were started.

Acceleration[51] was attempted for gifted children in special classes in 1956; in one class with a wide spread in ability and achievement about one half of the class was permitted to move ahead more rapidly than the rest so that they save one year on the eight year program. Parents have given consent for the children to be placed in special classes. Probably twelve children have been accelerated from regular classes of Grade I or Grade II in the past year on the basis of achievement, particularly in

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[50]Letter from Superintendent of Schools, Fred J. Gathercole, Saskatoon, February 27, 1957.

[51]Gathercole, ibid.

reading. Consideration is being given to a plan for accelerating the top fifteen or twenty per cent of primary children so that the three grades may be taken in two years.

Inconspicuous administration, highly selected teachers, and an enriched curriculum have characterized the program for the gifted in Saskatoon.[52]

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[52]Samuel R. Laycock, "Special Classes for Gifted Children in a Small City," Understanding the Child, Volume 9, April, 1940, pp. 3-6.

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CHAPTER II

THE UNITED STATES

Introduction

The United States has pioneered in the field of education for gifted children. For over seventy years educators have attempted to solve the problem and a number of experiments have been instituted. An increasing group of writers and students of education have attracted public attention to the needs of the gifted. New York and Cleveland in the East, and Portland and California in the West have instituted educational provisions in their school systems. These are being studied, and in some cases adopted in other areas. In this chapter outlines are given of programs in various states taken in alphabetical order.

Alabama

Birmingham with a school population of sixty-two thousand provides a program for its superior children by means of special classes with an enriched curriculum and by individualized instruction in regular classes.[1] Special classes operate with three teachers for 110 pupils. The children are selected at the fifth grade level and remain with the enrichment teachers to the end of the eighth grade. The classes fit into the

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[1]Robert J. Havighurst, Eugene Stivers, and Robert F. DeHaan, "A Survey of the Education of Gifted Children," Supplementary Educational Monographs, Number 83. Chicago: University of Chicago Press, November, 1955, p. 34.

platoon system of the school so that each class is with the enrichment teacher for half a day and then goes to special subject teachers for the other half of the day to receive instruction in activities concerned with art, the auditorium, and the playground. In the special classes pupils participate in the class planning for individual and cooperative projects. Dramatics, quiz programs, class council meetings, pupil interviews with people of the community, and visits to business firms are among the enrichment activities. History is studied by the project method. The class goes as a group to the public library and does research upon a subject of particular interest and then writes a chapter for the class project record.

In the regular classrooms efforts are made through special assignments, extracurricular activities, and development of units of work to meet the needs of gifted pupils. In some large schools the Grade I pupils are grouped according to ability and the upper group receives an enriched curriculum. In addition to visiting local community points of interest, special class pupils take trips to other parts of the state to see, for example, the state capitol and the hydro-electric plants of the Tennessee Valley Authority.

Arizona

Phoenix is consciously working to help its gifted pupils. Extra help is given by the teacher; opportunities are provided for leadership, helping other pupils, giving reports, and doing challenging work. Interviews with community officials, holding class offices, maintaining

equipment, and doing advanced and extra work in special fields are also provisions made both in elementary and high school work. Most students participate in about four extracurricular activities.[2]

In the West Phoenix High School, "Social Living" is an orientation course taught by counsellors, and special tests and conferences are provided for the gifted. Texts in mathematics have graded exercises. An extra course is available in advanced mathematics. College preparatory students are screened and only the selected take much algebra. Outstanding students from the commercial department go into offices and assume responsibility for half a day.

North Phoenix High School is noted for its work with superior students in the science field. There is a special physics class for those superior pupils who are taking their fourth year of mathematics and are highly recommended by the counsellors for the class. Each member does one research project and reports on it; science students meet and hear from many of the scientists in the community. Mr. C. Brown, a chemistry teacher, has sponsored the school's participation in the nation-wide Westinghouse Science Talent Search and in 1955 only two states and the city of New York had more winners. There are about sixty-five students of superior ability in the high school and nine teachers and a number of counsellors are concerned with the group.[3]

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[2]The Phoenix, Spring 1952 edition.

[3]Letter from Raymond C. Emery, Curriculum Coordinator, Phoenix Union High Schools, March 21, 1955.

Three teachers - a biologist, a chemist, and a physicist - form a team to develop scientific talent, interest and ability in pupils who have been identified in Grade IX or X. Promising students are used as laboratory assistants and much experimental work is provided in a differentiated program. Community resources are used to stimulate interest and active science clubs are organized.[4]

California

In California several centers have been dealing with the problem of providing for the gifted for some time. The California Advisory Council on Educational Research sponsored a survey by the Research Division of the California Teachers' Association in 1955. Ten counties and twenty-four cities reported that they were maintaining a program for gifted children. Nearly all the cities have started their programs since 1950; most of them start at the elementary level although four cities reported starting only at the secondary level.[5]

There is much variation in the cut-off point for identification of those to receive special consideration as superior pupils. Long Beach involves 3.5 to 4.5 per cent of its school enrolment in the program for gifted children, while Los Angeles and San Francisco involves 1.7 per cent.[6]

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[4]Samuel Bloom, "Early Identification of Potential Scientists," School Science and Mathematics, Volume LV, April 1955, pp. 287-295.

[5]Research Resume, No. 2; Gifted Child Education in California. State Advisory Council on Educational Research. December, 1955, p. 5.

[6]Ibid., p. 6.

Segregation has not been favored; enrichment in the regular classroom is the most popular procedure and there is some acceleration in the elementary grades. Community resources are significantly used in some of the areas.

In Long Beach a program for the gifted has been in effect since 1952; school principals and counsellors are urged to give immediate attention to identification. Individual conferences between counsellor and student must be held.[7]

Acceleration should not be more than one year in the first six grades and not more than one in the next six. Very superior pupils thus might enter college at age sixteen or seventeen. Care must be taken that no areas of knowledge are omitted in the accelerated program.

It is intended that the very superior pupils of one grade be placed in one room where they can form a part or all of the top group in that room. Gifted pupils from other small centers might be transferred to such a room. This grouping is intended to provide for enrichment and it is held that even the accelerated child will soon need his program enriched as well. Small groupings are commonly used for project work, reading programs, and special interest activities.

Specialized clubs and special reading programs under the direction of the librarian and the counsellor are being used in the secondary levels.[8]

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[7] Ibid., p. 11.

[8] Research Resume, ibid., pp. 14-15.

Reading in an area not on the curriculum is permitted if it is done under the guidance of a special teacher.

The role of the counsellor in identifying, advising, and planning activities is an important feature of the Long Beach program.

In Los Angeles the elementary schools operate an experimental Special Work Program for rapid learners who meet once a week with a special teacher in each of two centrally located schools. The pupils are drawn from Grades IV, V, or VI and must have I. Q. ratings of at least 130 and a record of good achievement. In the special classes duplication of regular class work is avoided and enrichment is not in advance of the grade level except on the initiative of the pupil who is encouraged to develop good study habits, varied interests, and the initiative to explore new fields. Motivation from the group and the teacher is emphasized.[9] Summarizing, creative writing, good note-taking, and pictorial map making are expected. French and Spanish may be studied. Science activities include experiments, individual projects, and a visit to the annual Science Fair.

Another phase of the Special Work Program is the library class. Senior members of the group join this class and attend meetings twice a month at the public library; here under the direction of the children's librarian lessons are based on the interests of the children. The use of card catalogues, magazine guides, and map sections are included in the learning.[10]

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[9]Research Resume, ibid., p. 16.

[10]Havighurst, op. cit., p. 39.

The secondary schools have varying programs for their gifted students, but the policy is to form a top group for each area of subject work.[11] In some cases there are special or homogeneous classes and in other schools differentiated instruction within the regular classes meets the needs of superior students. Enrichment practices are the rule although there is provision for the science groups to cover the work of two semesters in one. Club activities are coordinated with regular classwork; research and experimentation are urged and experiments may be demonstrated to classes. The method of choosing, planning, and evaluating learning activities in the language arts appears commendable. Creative writing, organization of summaries, and participation in approved contests add to the enrichment features of nearly all phases of the school curriculum.

Community leaders sponsor individual projects of gifted students. University and technical representatives discuss opportunities with students and their parents, and various community interests have established scholarships with the cooperation of industrial and business concerns.

In Berkeley there are provisions for enrichment in the regular classrooms, sectioned grades, and special activities in music and art. Sectioned grades with homogeneous grouping start about the seventh grade, and at the end of Grade IX the counsellor is given information that enables him to make a revised placement of students in Grade X with others of similar interest and ability.[12]

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[11]Havighurst, ibid., p. 40.

[12]Havighurst, ibid., p. 38.

Glee clubs, talent shows, and music clubs provide enrichment opportunities. Science clubs and special interest clubs are active. But community help is most significant in music and art. There are special art classes sponsored by the Art League one day a week after school hours throughout the school year; in addition there is a summer art class that meets each morning for the first six weeks of the summer vacation; the teachers are selected by the California College of Arts and Crafts.

In Oceanside, there is a group of above-average Grade IX students working on an enriched program in English. There is a growing interest in establishing classes which will challenge gifted children.[13]

In Modesto, enrichment manifests itself in emphasis on attitudes, social competence, and service. The attempt is made to help the child appraise his ability and achievement, face reality, and develop a degree of self-control. He is encouraged to engage in play groups and to learn to accept the abilities as well as the shortcomings of others. The twenty most highly gifted pupils of Grade XI and Grade XII are given a special two-hour class daily in which group and individual instruction is provided in an enriched program; for the rest of the day the students are in the regular classes. Interest is especially keen in the mathematics and science.[14]

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[13]Helen E. Roberts, "Current Trends in the Education of Gifted," California State Department of Education, Sacramento, October 25, 1954, p. 53.

[14]Paul Witty, "Guidance of the Gifted," The Personnel and Guidance Journal, Volume XXXIII, No. 3, November, 1954, p. 137. From N.B. Scharer in Bulletin of the National Association of Secondary School Principals, Part I, Volume XXXVI, March, 1952.

Particularly significant in the program is the attempt to develop a listening art; children are encouraged to listen carefully and purposefully, to hear accurately and interpret intelligently, and to build in cooperation their own standards for radio, TV, and motion pictures.[15]

Santa Barbara since 1898 has followed an A, B, C, grouping in each grade; the C group does the minimum requirements while each of the other groups do more according to ability.[16] Adams[17] indicates that enrichment has been favored over acceleration.

The community is used as a laboratory in which gifted boys and girls explore their interests. A student becomes an "under-study" to a business executive, a lawyer, a teacher, or a doctor for two hours at the beginning or at the end of the school day. Both are advised to make the experience a rich one.[18]

Fresno has rotated three Grade V classes and three Grade VI classes to enable gifted children to have the opportunity to work with teachers who have special abilities and interests. Two methods are used; one class stays with one teacher an hour a day for ten weeks and another class goes to each teacher for one hour a day for ten days. The flexibility of the arrangement is expected to give the children acquaintanceship with many areas of interest such as collections, animal study, electricity,

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[15]Research Resume, op. cit., p. 18.

[16]Fay Adams and Walker Brown, Teaching the Bright Pupil. New York: Henry Holt and Company, 1930, p. 31.

[17]Adams, ibid., p. 31.

[18]Letter written by Ray Emery, Director of Phoenix High Schools, February, 1955.

anatomy, pre-historic life, art, conservation, poetry, foreign language, and many other subject areas. Demonstrations and visual aids are encouraged for teacher use. There is an abundance of equipment available such as tape recorders, telegraph sets, microscopes, telescopes, chemistry sets, science kits, and numerous other items. Teachers of special area subjects change rooms. The case study approach is used extensively and recording is both general and specific in all subject areas.[19]

San Gabriel City Elementary School District issues a curriculum guide for the teachers of the rapid learners. Specific, challenging, and thought-provoking suggestions for enrichment are given in six subject areas and by grade or interest.[20] For example, pupils might seek traces of colonial life in modern conditions through a study of specified magazines which show examples of colonial architecture, interiors, silver designs, and china. They might have a discussion of Puritan "Blue Laws" and their influence on daily living.

In palo Alto, California, the elementary schools have an expanded enrichment in the form of conversational Spanish, extra classes in science, creative arts programs, school newspapers, and creative writing.[21] Four schools are developing an assembly program to provide lectures and demonstrations by specialists in subject areas. Four other schools have special literature discussion groups.

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[19]Research Resume, op. cit., pp. 9 and 38.

[20]Ibid., p. 33.

[21]Ibid., p. 23.

The junior high schools have each set up five enriched classes in science, social studies, English, and mathematics. Students of superior ability are invited to take one class during the school semester. These enriched classes cover the work of the regular grade level plus related subject matter chosen by the instructor and the coordinator. Careful attention is given to the articulation of the work with previous work and that to be taken in the next grade. Students have special counselling services and parents of pupils in special classes have conferences with the coordinators and principals.[22]

In the high school a class in science has been provided in order that superior students may carry out individual science projects.[23] Some of these projects may be submitted to the Science Foundation and the Westinghouse competitions.

There is considerable community cooperation through the P.T.A., newspapers, and public study groups.

The Riverside City Schools have operated a six-week summer program for Grades V and VI since 1951. The session is held at Riverside College where all facilities, with the exception of the science laboratories, are available to the children. Creative activities and opportunities for the development of leadership are encouraged. Children pursue interests of their choice from the fields of science, dramatics, reading, art, home-making, Spanish, choral verse, and creative writing. All phases of the

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[22] Ibid, p. 22.

[23] Ibid., p. 23.

program are under student leadership with staff advisers; the classes are held for four hours each morning and a considerable variety of opportunity is provided for discussion and committee work besides attendance at two or three special interest groups.[24]

In the Vallejo United School Districts[25] enrichment is provided in the regular classrooms. In some of the schools of the system the emphasis is on leadership. At Cave School the leadership program is expressed in organization of playground leaders from Grades V and VI who are responsible for supervision of the noon hour play period; girls and boys act as hosts or hostesses in the lunchroom. Pupils from the "Leadership Program" help primary grades in a work period and assist at special programs where opportunities abound for assuming responsibility that develops leadership. The Everest School provides special classes the last hour of the day for six weeks for superior pupils from Grades three to six. Very gifted pupils may take as many as five of these special-interest classes.

The Steffan Manor School of the Vallejo system has made specific provisions for the gifted children of Grades IV, V, and VI by organizing them into special classes for half the school day. Here they are given intensive experience in language and special interest fields and in projects growing out of classroom activities.[26]

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[24]Research Resume, ibid., p. 25.

[25]Ibid., p. 36.

[26]Research Resume, ibid., p. 33.

San Francisco has recognized the problem of gifted children since 1930 and, appreciating the different needs of these pupils, has established very flexible provisions in the administration and has left the instructional program to the school in which the child is located.[27] Great care is taken to help teachers understand the problems, enrich the programs, and provide them with guides, library aids, special equipment, instructional material, and other enrichment devices. In-service training through teacher work-shops, counsellors, and bulletins are significant in aiding the teacher to enrich the work of the gifted pupils. Community resources are utilized; visits to museums, the planetarium, or symphony concerts are examples. The Bureau of Texts and Libraries has been provided with a copy of school reading levels and ranges.

In the secondary schools advanced courses and laboratory facilities exist for students who have completed basic courses. A superior student is usually assigned a counsellor. Special interest groups have been established in electronics, astronomy, and spectroscopy. Participation in the Science Fair is encouraged.

San Diego's long study of gifted children has recently culminated in a number of provisions for their welfare. Less than one per cent of the students are classed as gifted as the criterion has been that of a score three standard deviations or more above the mean on an individually administered intelligence test.[28] This demand for a rating of about 148 I.Q.

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[27]Administrative Provisions for Superior Students in the San Francisco United School District; Bulletin No. 166, Fall, 1954. Bureau of Research, San Francisco, pp. 2-6.

[28]Research Resume, op. cit., p. 27.

has curtailed the size of the group and one experiment has been to place all maladjusted pupils from this group in a special adjustment room which operates at Birney School.[29] Counselling services and teacher consultants are important. Each school is responsible for the enrichment programs in the regular classroom. Two elementary teacher-consultants help classroom teachers in planning for more creative writing, more reference reading, and more unit projects in the social studies. Pupils excused from unnecessary drill, may use the time to carry on special interest activities, build models, or write to correspondents in foreign countries.

Acceleration of elementary pupils is limited and depends on physical, social, and educational maturity; though the policy of acceleration has been liberalized it has been difficult to advance the student to the grade level commensurate with his achievement level.[30] Roberts reports that almost all the gifted elementary pupils are accelerated about one year.[31]

In the junior high schools, able students do seventh and eighth grade work in the seventh grade. Grade IX students may go into advanced arithmetic classes where games, puzzles, and other mathematical applications are used for enrichment. Computers, slide rules, and calculating machines are introduced early. Standard tests scores are used to determine the level of need in English and work is assigned accordingly.[32] In some

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[29]Helen E. Roberts, "Current Trends in the Education of Gifted," California State Department of Education, Sacramento, October 25, 1954, p. 54.

[30]Research Resume, op. cit., p. 28.

[31]Roberts, op. cit., p. 55.

[32]Havighurst, op. cit., p. 42.

of the junior high schools, notably Dana,[33] superior students are working in fairly homogeneous groups. Despite a preference for heterogeneous grouping there has been a recent tendency to place college preparatory students together, particularly in mathematics and physics. Colleges have been approached regarding acceptance of high school students with advanced standing.[34]

In all departments if a student can demonstrate prior mastery of a subject by passing an examination in it, he may be excused from some of the routine courses in order to take electives of his own choice. Four teacher-consultants in the secondary schools help classroom teachers plan programs for gifted students and also aid pupils in arranging for college scholarships. There has been a careful attempt to avoid unnecessary identification of the gifted pupil in class or out of it; thus elementary level grouping within the class has been favored. In the high schools honors plans are open to all students in the grade who have made high achievement. Much use is made of community resources. War surplus materials have been donated to the schools; resource persons have been invited to address the students. Field trips and participation in the local Science Fair add to enrichment opportunities.[35]

Santa Monica, a suburb of Los Angeles, has established a workshop seminar and, with the advice of the resource personnel, each pupil has

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[33]Roberts, op. cit., p. 55.

[34]Ibid., p. 56.

[35]Havighurst, op. cit., p. 43.

been able to proceed with his own research in a given area. In a survey of the provisions in the high school program it was found that six per cent of the pupils were capable of doing superior work. A process of natural selection operated in some of the classes in mathematics, science, and foreign languages; enrichment in social studies occurred in the regular classroom. A four group program operated for the students in English so that the top four per cent were in the "XL" classes.[36] Creative writing and very high-level reading characterize the program for this group; philosophical questions raised by the reading of Plato, Dante, or Maugham challence intellectual curiosity.

Cullimore[37] tells of an architectural club that has operated in the Bakersfield High School for thirty years; the course in the high school is intended to appeal to the superior pupils who should respond to the challenge for technical skill and creative art. The students have won many awards in national competitions such as the annual Industrial Arts Awards sponsored by the Ford Motor Company.

Colorado

In Denver a K-12 Committee was appointed in 1954 to report[38] on the educational provision for the gifted. Enrichment is effected in the

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[36] J. C. Gowan and Mildred Wilbar, "Santa Monica High School Evaluates a Program for Gifted Children" California Journal of Secondary Education, Vol. XXX, No. 4, April, 1955, p. 220.

[37] Clarence Cullimore, "Architectural Training for Gifted Students at Bakersfield," California Journal of Secondary Education, Vol. XXX, No. 4, April, 1955, p. 202.

[38] Report of the Denver Public Schools, 1955.

regular classes of the elementary school through club activities, hobby groups, individual or group projects, the use of audio-visual aid equipment, and opportunities for practical application of the subject area learnings. Pupils also plan and carry out activities for the whole school such as newspapers, plays, and campaigns.

Efforts are made to group the children in various ways to reduce the range of ability within a given classroom, thereby giving the teacher a better opportunity to meet the needs of the gifted.

The junior high school institutes grouping in relation to ability, and accelerates or enriches the learning in one or more academic subjects or, in some cases, in all of them. Some teachers use heterogeneous grouping and through workshop activity demand from the more able pupils individual or group work of a special nature.

High schools offer electives, activity programs, and counselling service, particularly in some of the elective courses requiring high achievement. In these classes homogeneity is more common.

Georgia

In Atlanta the Grade XI and Grade XII students have enrichment in the five fields of social studies, science, English, mathematics, and a foreign language. Besides the enrichment there is an attempt to have curricula so designed that the students will have advanced standing when they enter Grade XIII at the college level. This work is carried on at

the Westminster School.[39] Analytical geometry, calculus and courses involving inductive and deductive reasoning feature the mathematics classes for the able students. In biology, chemistry, and physics the courses are planned to remove the need for any elementary science at the college level. Enrichment is the keynote in the English and social studies.

Illinois

Evanston Township High School has been concerned with gifted pupils for many years; identification is by pupil performance, teacher recognition, and standardized tests.

Special classes are operated on a homogeneous basis for nearly the top twenty-five per cent of the enrolment. There are honors classes, guidance services, special classes, and many extracurricular activities, such as the Master Singers and Festival choruses. There is an honors class and three special classes in English, a special algebra class, and also a special class for science. Candidates are admitted to these classes by means of a battery of tests. Sequential courses in trigonometry and solid geometry are available for those who have shown outstanding mathematics achievement in the past three years. Special classes are provided for Spanish and for a two-year sequential course in Social Studies. There are many opportunities for students to develop leadership in community work and help the House Economics department set up craft units. Guidance

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[39] William L. Pressly, "Curriculum Enrichment for the Gifted," Educational Leadership, Vol. XIII, No. 4. January, 1956, p. 235.

services operate for all students with help to the special classes in providing opportunities for leadership and social adjustment in many of the co-curricular activities. The students participate in science fairs and in the Westinghouse Science Talent Search. College level courses were instituted in 1953 as a project of the Ford Foundation in the Advancement of Education. Evanston is one of twelve high schools cooperating with twelve colleges in a School and College Study of Admission with Advanced Standing. While there is some acceleration in the system there is a hope the time in secondary school may be further shortened for gifted pupils. Along with six other high schools, this one is operating pilot courses to learn if work done in high school by gifted pupils can be recognized for credit by cooperating colleges.[40]

Thaddeus Lubera,[41] assistant Superintendent of Secondary Education, reported in 1953 that in the Chicago public high schools honor classes operate in English, mathematics, and science. Each class is limited to thirty students. Arrangements are made for acceleration and for advanced work of college level in some of the schools.

Special classes are organized in the social sciences. Frequent conferences are held with the students to determine the relationship of

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[40] Mildred G. Fox, "Providing for the Gifted," Bulletin of the National Association of Secondary School Principals, Volume 37, November, 1953, pp. 78-81. (Also reported in Education Digest, Volume XIX, February, 1954, pp. 10-12.)

[41] Thaddeus J. Lubera, from an address to the Thirty-seventh Annual Convention of the National Association of Secondary Principals at Los Angeles, February, 1953; Bulletin of the National Association of Secondary School Principals, Vol. 37, Number 194, April, 1953, p. 29.

their special interests to the courses being taken. In the Marshall Senior High School, special classes were organized in 1943 for work in social studies. Calumet has five such classes and there is one at Von Steuben High School. Some of the high schools sponsor annual science fairs in the Museum of Science and Industry. The gifted students organized their experiments and were assigned to exhibit booths to meet the public and explain the scientific phenomena portrayed. In the majority of schools the gifted write editorials for the school newspapers and act as chairmen in the committee study groups. The workshop procedure has been used in Glencoe to benefit the rapid learner.

Oak Park High School in Illinois gives guidance through ability and aptitude testing. Acceleration, ability grouping, career conferences, and individual counselling are all used. Students participate in science assemblies and contests, act as laboratory assistants, and take part in the National Science Talent Search. There are three groupings in chemistry so that superior pupils take the heaviest course with the most mathematics. Science clubs, biology clubs, and chemistry clubs provide further interest activities.[42]

New Trier Township High School at Winnetka, has special grouping in English, science, and history for the top ten per cent of the freshmen. In the academic field the top twenty per cent may register in classes giving enriched instruction.[43] In the upper years there is less segregation

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[42]Bloom, op. cit., p. 292.

[43]Havighurst, op. cit., p. 45.

but the subjects offered on an advanced level attract only the most able. Advanced courses are available in mathematics, science, and foreign language courses. Additional electives are also available. Many activities are sponsored encouraging leadership. Art, music, bands, concerts, and student council activities are developed. Laboratory courses and special classes in radio and photography give students additional opportunities to achieve in areas of interest.

Quincy, Illinois has a program in its public schools for enrichment through the regular classrooms. The project is being carried out in collaboration with the Quincy Youth Development Commission and with several community organizations interested in gifted children. A Curriculum Enrichment Committee was set up to develop a program for the gifted; it consists of ten elementary teachers, three elementary principals, an elementary curriculum director, and the superintendent of schools. Reports of suggestions are sent to the elementary teachers each of whom is asked to select one gifted child in the classroom and make a special study of ways to help him develop his special abilities. So far the program has been confined to the elementary schools.[44]

The Quincy Development Commission has kept in contact with the Portland School Project for students with exceptional endowment.[45]

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[44]Havighurst, ibid., p. 47.

[45]Progress Report No. II of the Cooperative Program for Students with Exceptional Endowment, Portland Public Schools Gifted Child Project, April, 1954, p. 49.

Maryland

In the elementary schools of Baltimore enrichment is emphasized. Movable furniture facilitates easier supervision of several groups in a class and makes enrichment easier for bright children through additional reading, study units, projects, library work, creative writing, and class plays. Ability grouping is common and teaching is adjusted accordingly.[46]

At Arlington School 234 twelve classes of superior children have instruction simultaneously each Wednesday morning in various subjects as art, science, dramatics, or pupil council work. Twenty-five children, selected from Grades IV, V, and VI, meet once a week with the principal or vice-principal to plan field trips to other schools, homes, libraries or museums. A special class of exceptionally capable and mature Grade III pupils was selected for unusually significant experiences in music and science.

This school also offers enrichment to a group in the heterogeneous classes. In 1954 it was proposed to have a homogeneous grouping of one superior class for each grade in ensuing year.[47]

W. M. Alexander School 112 is an elementary school in which twenty-five children of ages five to twelve years and ranging from I. Q. of 104 to 152 meet one hour a week with the school librarian to discuss radio

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[46] Baltimore Bulletin of Education, Volume XXXI, No. 5, June, 1954, p. 7.

[47] Ibid., No. 5, p. 32.

program book talks and review new books that come into the library. They stimulate reading in their homeroom classes. Later on two classes were organized: one of twenty pupils from Grades I - III meets for forty-five minutes each Tuesday; the other intermediate group meets for one hour each Wednesday. "Reading tastes have matured; leadership has developed. Over-aggressive pupils have become followers through working with their mental peers."[48]

Margaret Brent School 53 is also an elementary school. Instead of leaving superior students in all classrooms this school takes all the superior pupils in each grade and puts them in one classroom, and, although there may be others of lesser ability in the room, the grouping provided enrichment opportunities. A superior group in the Grade III room formed a book club in which they pursued reading at the junior high school level.[49]

In the junior high schools acceleration receives more attention. Baltimore has followed a normal progress program since 1947, characterized by flexibility and experimentation. Opportunities are still given for acceleration which has been in effect since 1905.

The Robert E. Lee Junior High School 49 is a "preparatory" school started in 1905. This school along with the Booker T. Washington Junior High School 130 permits three grades to be completed in two years.[50]

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[48]Baltimore Bulletin, op. cit., p. 33.

[49]Ibid., p. 33.

[50]Ibid., p. 5.

Bright pupils are apparently selected for these schools. Homewood and Coppin Demonstration Schools operate in summer months and permit pupils to advance about one-half year.[51] Students from these schools may enter the advanced preparatory course at one of the three high schools.[52]

Western City and Polytechnic High Schools provide "preparatory" advanced college courses so that students save a year in post-high school education.[53] Thus pupils of high ability may be accelerated as much as two years. Several colleges accept these accelerated students into their sophomore classes.[54]

In senior high schools and even in junior high schools pupils were segregated into subject groupings providing for more mature work, and development of qualities for leadership and character. Efforts were also evident that stimulation was given toward superior ability effort in music, art, drama and vocational skills.[55] New recommendations are being instituted in the junior high schools for bright pupils.

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[51]Baltimore Bulletin, op. cit., p. 5.

[52]Paul Witty, "Programs and Procedures for the Education of Gifted Children," Special Education for the Exceptional, Volume III. Edited by Merle E. Frampton and Elena D. Gall; Boston: Porter Sargent Publisher, 1956, p. 33.

[53]Baltimore Bulletin, op. cit., p. 5.

[54]Witty, op. cit., p. 33.

[55]Baltimore Bulletin, op. cit., p. 6.

Massachusetts

Massachusetts also has made provision in some schools for its gifted children. In Brockton, the B. B. Russel School has two special enrichment classes; one for fourth and fifth grade pupils, and one for fifth and sixth grade pupils. Emphasis is given to enrichment of the regular subjects with creative writing, field trips, and participation in dramatics as added features. Leadership, creativity, and mental health are desired objectives. A child guidance clinic and psychotheraphy services are available.[56]

Many graduates of the Newton High School in Boston have attended at Yale or Chicago under the early admission plan.[57] For several years the school has been meeting the needs of its gifted students by placing them in homogeneous groups. For example, in 1953, there were thirty-five sections of tenth grade English. Thirteen of these were college preparatory groups of which two sections were composed of very superior children.[58] These students were outstanding in physical and emotional maturity, school achievement, and intelligence test results. They were encouraged to have a moderate number of extracurricular activities. Highly qualified teachers offer instruction in English, French, Mathematics, biology, and physics. A few able students take as many as four of these advanced courses upon which they write examinations at the end of the year for college credit.[59] From sixty-five to seventy per cent

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[57]Roberts, op. cit., p. 20.

[58]Ibid., p. 21.

[59]Ibid., p. 21.

of the graduates of the school attend college, many with scholarship aid. In the Waterton High School able prospective scientists are invited to take a seminar in which they meet weekly and work on science projects or prepare for competition in science contests.[60]

Michigan

Detroit has made provisions for the education of gifted children since 1915. Ability grouping begins within regular classes in the first half-grade of the elementary schools. Children spend one half-day in the home room and one half-day in special activity classes. Rich and related experiences in music, art, social studies, science, and health education under specially qualified teachers provide for needs of the mentally superior. Classroom activities include special assignments, supplementary reading, dramatizations, recording progress charts, collecting display material and setting up bulletin board announcements. The gifted lead discussions and motivate others to participate in reading and discussion of the theme of the lesson. They prepare word lists from the various subjects and give much interested study to word practice. They gather reference material, make reports from books or field trips, and work in group discussions of particular problems. Library experience is afforded through much reading, classifying, recording, and annotating cards so that other children may be encouraged to read. Social studies is divided into a number of units and the gifted are able to explore extra reference

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[60]Bloom, op. cit., p. 295.

material and seek deeper meanings. They give reports, lead discussions, review articles, and suggest further activities for the group. They may dramatize events or participate in debates. All this work at the elementary level is excellent preparation for the quality of work demanded in the high school.[61] Children at six elementary schools are learning Spanish and French. Language experts insist that a foreign language can be best learned before speech organs are set.[62]

In the junior high schools sub-grouping of students, differentiated materials, and differentiated teaching techniques are continued. Reasoning and individual research are emphasized in the mathematics and science classes; clubs, workshops, well-equipped laboratories, and opportunities to create projects all contribute to the enrichment of the subjects. Special arrangements are made for pupils specially gifted in various fields; for example, junior high school classes have a three hour period in the art galleries on Saturday mornings; others may go to the sculpture studio; and both elementary and junior high school students may go on to special classes in art at the Detroit Institute of Arts on Saturday mornings. Records are kept of those with special talents and special supplies are sent to each center. There is considerable variety in the programs provided.[63]

In the John Burroughs Intermediate School, provision is made for

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[61] Detroit's Program for Gifted Children. Board of Education of the City of Detroit, 1956, pp. 10-12.

[62] Detroit's Program, ibid., p. 15.

[63] Detroit's Program, ibid., pp. 14-20.

about 160 of the most gifted students by means of enrichment in homogeneous sections within grades, enrichment in the regular classrooms, and an arrangement for supplementary time for special activities at the end of the school day.[64] Each grade is grouped homogeneously in several sections and each section is given work appropriate to its ability. Where homogeneity is not provided enrichment is afforded in the regular classes. Superior students are urged to report on new books, particularly biographies, and to make reports on items of special interest and prepare material for regular classes as sketches, displays, and models. In mathematics classes gifted students make supplementary maps, charts, drawings, and models of geometric designs. Various clubs such as the mathematics club, the glee club, and the band offer additional enrichment opportunities. Community resources are utilized - the art museum, the zoo, the local contests in oratory and short story writing, and the Edison Institute.[65]

In the senior high schools gifted students may have the choice of a large number of electives. Courses in public speaking, journalism, dramatics, radio speech, world literature, foreign languages, advanced algebra, advanced science, contemporary affairs, modern European history, painting, design, and photography are listed as electives.[66] Most senior high schools use the principle of ability grouping in the English classes.

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[64]Havighurst, op. cit., p. 62.

[65]Detroit's Program, op. cit., pp. 12-21.

[66]Detroit's Program, op. cit., p. 27.

Classics and Shakespearean plays are read. In the composition (4x) class composed of college preparatory seniors, a high quality of creative writing is achieved by students who do much reference reading and research work as well as book reviews and oral reports. The success of the creative writing is indicated by the many students who win national recognition in the Scholastic Writing Awards.[67]

In one high school, the Edward Denby High School,[68] a special provision is the accelerated reading class of Grade IX pupils who have a Grade XI reading ability and who are allowed to read such works as A Tale of Two Cities, Collection of Poetry, and Four Comedies of Shakespeare instead of the regular anthology. In the same high school eleventh and twelfth grade college-preparatory students of superior reading ability may take a six week non-credit course with a teacher who is a former supervisor of Wayne University's reading clinic. In one school the gifted conduct science classes under the teacher's supervision and are given the opportunity to introduce new work. Considerable encouragement is given to the gifted in science projects and research. One west-side senior high school put on a special course in leadership training in 1954. Students taking the course are carefully recommended by counsellors, club sponsors, or teachers. There are many extracurricular activities provided through various clubs and field trips to automobile factories, television stations,

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[67]Detroit's Program, ibid., p. 14.

[68]Havighurst, op. cit., p. 63.

the Historical Museum, and other places of interest. Broadcasting guilds, oratorical contests, debating clubs, public appearances in all-school plays, concerts, and student council and newspaper all provide fine enrichment opportunities for those most able to participate.[69]

Missouri

In University City there are 275 pupils working in a special enrichment program under the guidance of one half-time and two full-time teachers. The special classes meet for forty to fifty minutes twice a week in each of the elementary schools. The pupils are divided into thirty groups for enrichment work so that the number in each class is from eight to ten. Children from Grades II to VI are selected on the basis of achievement, teachers' estimates, and intelligence ratings that are usually above 140. Language, social studies, and science receive special attention. Assignments in reading, reports, and discussions are frequent. Dunlap[70] reports that the pupils explore topics not studied at all or not very intensively in the regular program. For the rest of the time the pupils are in the regular classes and so only a small amount of segregation takes place. Field trips, charts, pictorial representations, and construction of models or equipment are special features of the enrichment program. Current events discussions, creative writing, and typewriting are encouraged. The many

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[69]Detroit's Program, op. cit., pp. 14-23.

[70]James M. Dunlap, "Gifted Children in an Enriched Program," Exceptional Children, Vol. XXI, No. 4, January, 1955, p. 135.

activities provided have developed attitudes, study habits, and ways of getting along with people that are objectives of the special classes. Cutts[71] reports that nearly all pupils have adjusted satisfactorily to the program. Of the twenty-three who have already graduated from junior high school, fourteen made the honor roll while there were only four honor-roll students from a matched control group.

New York

A survey report[72] in 1952 indicates there are about 23,000 elementary school children with I.Q. above 130. Heterogeneous grouping and partial segregation are employed to meet the problem in the elementary schools. However there are only forty-five classes of partially segregated pupils in an elementary school population of 511,499. Havighurst[73] reports that in nineteen elementary schools special classes for intellectually gifted offer enrichment within the regular school program.

In 1915, special classes were established at Public School 64 and five years later special classes were formed in Manhattan. In 1922, Professor Hollingworth established two special Opportunity classes at

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[71]Norma E. Cutts and Nicholas Moseley, Teaching the Bright and Gifted. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1957, p. 97.

[72]Florence Beaumont, Reports and Recommendations on the Education of the Intellectually Gifted in New York City; Committee of the Division of the Elementary Schools. Board of Education of the City of New York, 1952, p. 15.

[73]Havighurst, op. cit., p. 70.

Public School 165.[74] In one class the pupils had I.Q. ratings above 150; the other class included pupils of ratings from 134 to 154. The children needed about half the time to do the regular work and so enrichment was developed to meet the needs of the pupils for the other half of the time. Algebra, French, and biographical studies were included. Later experimental studies indicated that values lay in enrichment of scholastic experience with additional intellectual opportunities. In 1932, Public School 208 was organized at Brooklyn and continues to operate special Intellectually Gifted Children classes. In 1934, individualization of instruction became emphasized in New York and two committees were appointed to study among other matters the needs of exceptional children. In 1936, Public School 500 Speyer School[75] was established with nine classes, two of which were for children of rating over 130 I.Q. These were called Terman classes. Under the advisory supervision of Professor Hollingworth an objective was established to provide individualization of instruction which "would be psychologically proper, socially sound, and ethically humanitarian."[76] Half the day was devoted to enrichment activities emphasizing originality and creativeness. Less drill gave more time for reference reading in the libraries of the school and Teachers' College library. Some work was

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[74]Laura K. Eads, "The Education of Intellectually Gifted Children," Bureau of Curriculum Research, Board of Education of the City of New York. Revised April 20, 1955, p. 1.

[75]Miriam Pritchard, "The Contributions of Leta S. Hollingworth to the Study of Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 57.

[76]Ibid., p. 60.

organized around a center of interest into units of work which had for a theme, "The Evolution of Common Things." Tests were not used and pupils were divided into committees to collect material from libraries, field trips, and information supplied by various industries. The culmination of an enrichment unit was an individual pupil report on the entire unit. Many of these were masterpieces of organization, originality, and thoroughness. French language and literature were included in enrichment work. The science of health and nutrition was taught by specialists from the Teachers' College. Special work in general science was taught by a student from the Advanced School of Education of Teachers' College. Special teachers from the New York School of Music and Art helped in these subject areas.[77] Pupils also achieved well in handicrafts. Dramatics, games, assemblies, and gymnasium exercises gave good opportunities for creative and social experience.

In Public School 233, thirty intellectually gifted children were placed in a special class as a Grade VIIa group. The ordinary curriculum was taught but in a different sequence. Increased initiative and motivation were encouraged through careful planning and an abundance of extra supplies. Pupils were divided into eight committees each with an area of study such as mammals, birds, plants, minerals, or insects. Later the personnel of the committee was changed in order that the pupils might become familiar with other areas of study.[78] Marion V. Brown reports

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[77] Ibid., p. 60.

[78] Karl C. Garrison, Psychology of Exceptional Children. Revised edition; New York: Ronald Press Company, 1950, p. 258.

that the children in the special class of this school have been with the same teacher in the last two years of elementary school and that their achievement was consistently superior and their participation in clubs and extracurricular activities was common.[79]

Homogeneous grouping has been practised for many years at Public School 241 and at Public School 167; special classes have been organized at Public Schools 9, 33, and 152. Many evaluative studies and workshops have been included in the programs for the elementary gifted pupils.[80] Grace Granger[81] urges more primary reading for enrichment. Psychologists add their support to the need for enrichment. Carlson[82] urges that the bright child should be offered individually challenging experiences; that he should proceed at his own learning rate and spend the extra time in enrichment activities.

Hunter College Elementary School was established in 1940 and authorized by the New York City Board of Education to establish an elementary school for gifted pupils. As a result children from three to eleven years who test above 130 I.Q. and have other favorable traits are admitted for the nursery, kindergarten or elementary grades.[83] It is a laboratory school making use of enrichment in regular classrooms and in special

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[79]Paul Witty, "Nature and Extent of Educational Provisions for the Gifted Pupil," The Gifted Child. Edited by Paul Witty; Boston: D.C. Heath and Company, 1951, p. 188.

[80]Eads, op. cit., p. 4.

[81]Witty, op. cit., p. 187.

[82]Witty, ibid., p. 188.

[83]Walter B. Barbe, "Homogeneous Grouping for Gifted Children," Educational Leadership, Volume XIII, No. 4, January, 1956, p. 226.

activities. The range of I. Q. is reported to be from 130 to 180 and consequently the classes are not entirely homogeneous. Teachers in training at Hunter College are associated with these classrooms. Children are placed in the classes on the basis of chronological age, and of social and emotional needs. Informal classroom procedure in a workshop manner emphasizes self-discipline and responsibility.[84] Gertrude Hildreth urges that there should be many provisions for enrichment through small group projects, library reading, independent individual work, special projects, and planning programs. There is some acceleration but Hildreth indicates that it should be in moderation. Individualized instruction provides for creative work by the child in harmony with his capacity.[85] There is a unified approach to the usual fields of subject matter with an emphasis upon relationships in developing basic themes for study.

The school has an abundance of resource material for instruction. For one hour each week other school activities cease and interest groups meet for activities in art, music, dancing, cooking, dramatics, French, photography, science, or hobbies.[86] Many of the club activities are carried on at other times in the classrooms and sometimes pupils may work at an individual project rather than with any of the interest groups.

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[84]Havighurst, op. cit., p. 67.

[85]Gertrude Hildreth, Florence Brumbaugh, and Frank T. Wilson, Educating Gifted Children at Hunter College Elementary School. New York: Harper and Brothers, 1952, p. 260.

[86]Gertrude Hildreth, "School Planning for the Gifted," Educational Administration and Supervision, Volume 41, January, 1955, p. 1.

Cultural and informational opportunities are afforded through field trips to many of the centers of interest in the city and enterprises such as Red Cross campaigns, are undertaken whereby the children become acquainted with public services. Each teacher's program includes one free day a week in order that she may make arrangements for these trips and activities.[87] Parents and various community agencies participate in providing opportunities for enrichment for the pupils.

Florence Brumbaugh, principal of the school, tells of a reunion of twelve of the 1941 kindergarten class who met in 1954 and reminisced regarding the enrichment provided through French, audio-visual aids, and field trips. Many had been motivated by the flexible enrichment provided to go on to specialized secondary schools.[88] Fourteen hundred children with superior mental ability have attended this school since 1941; it is proposed to institute a follow-up study of these pupils. Many have entered college and some have been chosen for early admission under the Ford Foundation plan.

Provisions for gifted pupils in New York high schools have been in effect for many years. There are seventy[89] senior high schools of which fifty-cour are academic; many of these have enrichment in the regular programs or extra electives and most of them also have Honors classes. Many have Honors Schools within their organization.[90] There are also a

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[87]Witty, op. cit., p. 189.

[88]Florence M. Brumbaugh, "Our Youngest Intellectuals Thirteen Years Later," Exceptional Children, Volume XXI, No. 5, February, 1955, p. 168.

[89]Havighurst, op. cit., p. 70.

[90]Leo Weitz and others, "The Rapid Learner in Our High Schools," High Points, Volume 38, No. 2, February, 1956, p. 16.

number of students whose particular interests may not be satisfied in the procedures of the comprehensive high schools and for such students there are sixteen specialized schools. Four of these have a very definite purpose[91] and select only students with keen interest and ability in the special field. Thus provisions for gifted secondary students lie in the extra courses and activities of the regular schools, the Honors Schools, Honors classes, and Specialized Schools.

Forest Hills High School is a comprehensive high school accommodating over three thousand students with a faculty of over one hundred fifty of whom about twenty-four are designated to take charge of the Honors classes for about 150 students. Science and mathematics programs are particularly well developed. About forty students who wish to take a four-year major in science are accepted with their parents' approval. Students taking this major in science usually have an I.Q. over 130, and reading and arithmetic placement scores well above the ninth grade, a scholastic average above ninety, and placement in at least the ninetieth percentile of the Science Research Associates Test of Primary Abilities.[92] Research, assistance to scientists in laboratories, and training in advanced mathematics are features of the program. Paul Brandwein, associated with this school, remarks that in identifying students of high potential it was found that:

> They possessed high intelligence quotients, high verbal ability, high mathematical ability, and high manipulative skill ... and that high science ability is a high general ability and not a special talent.[93]

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[91]Morris Meister, "A High School of Science," The Gifted Child. Edited by Paul Witty; Boston: D.C. Heath and Company, 1951, p. 220.

[92]Havighurst, op. cit., p. 78.

[93]Bloom, op. cit., p. 290.

Students prepare exhibits for demonstration at the Science Fair and to other students. Reports are made for the Science Journal or seminar meetings of the Science Society or the Mathematics Honors Society. Students also participate in the Westinghouse Talent Search. After half a year in the Honors class students may elect to enter the advanced science class which is a laboratory period; here they may choose and solve their own science projects. Gifted students are given honors courses in English, dramatics, and journalism. Besides honors courses in social studies, pupils take a number of courses in the regular classroom. In September, 1955, arrangements were made for college preparatory courses in English, science, and mathematics.[94]

The Sewanhaka High School in Floral Park, New York, is a comprehensive four-year school which offers enrichment in the regular classrooms, a special seminar for senior students, and some Honor classes in social studies and English. Mosso[95] reports that the first seminar was introduced to twelve superior students who met once a week and planned projects, exchanged ideas and evaluated work. Specialists in various subject areas are invited to speak to the group. Considerable planning is done by faculty members and discussion with them occurs during seminar periods.

Monroe High School in Rochester, New York has an experimental Honors

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[94]Havighurst, op. cit., p. 78.

[95]Asenath M. Mosso, "A Seminar for Superior High School Students," School Review, Volume LIII, October, 1945; quoted by Paul Witty, "Nature and Extent of Educational Provisions for the Gifted Child," The Gifted Child. Boston: D.C. Heath and Company, 1951, p. 192.

program featuring varied teaching procedures. Fliedner[96] reports that the pupils are selected on the basis of intelligence tests, school records, and achievement. He claims that the achievement is of much higher quality in these classes. Bloom[97] indicates as well that the students have long term assignments, special reports, study projects, and field visits to industries and universities. Students take part in the science fairs and in the National Talent Search. They are expected to achieve higher in their work and to go beyond the minimum requirements of the course. Samuel Bloom says: "We at Monroe are greatly encouraged by our results; but it is too early to properly evaluate the program."

Mont Pleasant High School in Schenectady, New York, is a senior high school that has established a Competent Child Project.[98] It includes enrichment and acceleration in English, mathematics, science, languages, and art. Enrichment in regular classes had failed to meet the needs in the mathematics classes and now special classes were set up in the subject areas of mathematics and languages. In English there is enrichment in regular classes although some segregation obtains on the basis of achievement or interest. A special seminar is set up in science for the senior pupils who have shown

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[96] L. J. Fliedner, "A Comparison of an Honor School Class and a Regular Class in Chemistry," High Points, Volume XXVIII, November, 1946, pp. 67-70; quoted by Paul Witty, "Nature and Extent of Educational Provisions for the Gifted Pupil," The Gifted Child. Boston, D.C. Heath and Company, 1951.

[97] Bloom, op. cit., p. 294.

[98] Francis E. Morhous and Elizabeth Sherley, "A High School Program for Gifted Students," Education Digest, Volume XXII, No. 1, September, 1956, pp. 41-43.

high achievement. The teachers report satisfaction with the homogeneous grouping provided in the subject areas.

Elective courses are offered as additional fields of enrichment in many ordinary high schools and in specialized ones as well. The students are usually the bright ones as they have the most interest, ability and room on their timetables for the electives catering to special interests such as sociology, dramatics, zoology, public speaking, advanced science, and advanced mathematics in the areas of solid geometry, algebra, and calculus.[99]

In large schools it is possible to have sufficient gifted children to establish an Honors School within a school, as it were, in which the superior pupils excel in general fields rather than in a special subject. Admissions are based on previous high quality achievement and in some cases the I. Q. rating is a further factor. At least fifteen of the New York High Schools report having Honors Schools within their organizations; generally it means that students are segregated in home rooms with their own special adviser, and are taught by a special group of the faculty.[100] The special adviser helps with selection and guidance of pupils, supervision of courses, and planning of programs; he visits the classes and confers with their teachers. Homogeneity is not as great as in Honors Classes; sometimes the teachers take exception to the system itself. Students may feel that too much more is demanded of them in comparison with their schoolmates in regular classes.[101]

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[99] Weitz, op. cit., p. 23.

[100] Weitz, op. cit., p. 16.

[101] Witty, op. cit., p. 214.

It appears that in some Honor Classes and Honors Schools the grading on reports is designated by an H after the mark; for example 85 H carried a different connotation than the 85 on a regular school statement.[102] This is done at the Evan Childs High School in the Bronx which has Honors Classes and Honors Schools. Honors School pupils are sometimes identified in the first year, and sometimes after they have proved themselves for a year in high school work; they must sustain high marks in a heavy program with few electives. Those concerned with the work of the pupils, speak most favorably of the grouping and challenging interests of the learning situations which develop under homogeneous grouping. It may be observed that the members of the Honor School within a school mix with the rest of the school in various co-curricular and extracurricular activities, and in lunch periods, assemblies, and health education classes. Membership in an Honors Class is of course recorded on the student's permanent record.

Honors Classes are established in many of the comprehensive high schools, in which superior children are grouped for advanced instruction in a particular subject such as English, social studies, or science. The students are usually classified on the basis of achievement in the same subject area in a previous grade. There are opportunities to substitute special courses instead of the regular ones in such Honours Classes; this provides continuous enrichment through three or four years of high school and is preferred to acceleration. There is no city-wide effort to formulate

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[102] Roberts, op. cit., p. 10.

standard syllabi for the rapid learners.[103] Over forty of the high schools have such classes for pupils of superior attainment in particular subjects in which the students follow an enriched course while taking other subjects in regular classes.[104]

There is also the enrichment of regular classes in many schools for the superior students who are not in Honors Classes. Features are: more reference reading, greater emphasis on research, reports, panels, term papers, and special high-level themes. The academic high schools of the system reported that they had 24,710 children with I.Q. ratings of 120 or over who were involved in the programs for the gifted. Of this number 8213 were enrolled in Honors Schools. Enrichment is the objective rather than acceleration. There is a conscious effort toward making gifted children extend themselves to their full capacity in the various phases of secondary education.[105] Special emphasis is placed on stimulation of initiative and ability to do individual study and to organize material.

The specialized high school is a school above the eighth grade designed to meet the needs, interests, abilities, and terminal aims of a particular segment of the adolescent population; it selects its students on the basis of interest and ability to succeed in the particular purpose of the school. There is a broad curriculum in these schools so that

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[103]Weitz, op. cit., p. 20.

[104]B. Donovan, "New York City's High Schools," Education Digest, Volume XXI, September, 1955, p. 18. Reported from High Points, Volume XXXVII, May, 1955, pp. 28-35.

[105]Donovan, ibid., p. 19.

students get academic subjects as they would in the academic high school; they proceed from these schools to college.[106]

Of the specialized schools four are noteworthy for definiteness of purpose; the Bronx High School of Science, the Brooklyn Technical High School, the High School of Music and Art, and the Stuyvesant High School.[107]

The Bronx High School of Science is a co-educational school of about 2400 students who are admitted on highly competitive examinations covering reading, vocabulary and mathematical aptitude; school record and personal recommendations are also considered. In the first year the students take English, science, social studies, and mathematics in an integrated program including trips, movies, dramatics, and discussion groups.[108]

The second year emphasizes general educational values and encourages the growing interest in science. The student is then ready to pursue his special interests in the next two years of high school.[109]

Dr. Meister, concerned about the waste of human potential in future leaders, urged New York City to found the High School of Science in 1938. The median I.Q. is 137. Each pupil is required to complete some special project. Wide reading, field trips, clinical laboratories in biology, much laboratory work, use of community resources are all involved in the enrichment associated with the school. Students are admitted to college with advanced standings as the school co-operates in the Kenyon Plan.

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[106] Meister, op. cit., pp. 217-219.

[107] Meister, ibid., p. 220.

[108] Weitz, op. cit., p. 15.

[109] Meister, op. cit., p. 223.

Graduates won 265 Regents College Scholarships in 1955. They won eighteen scholarships and ninety honorable mentions in the Science Talent Search.[110] Principal Meister says that:

> ...his school is not a technical school with science as an objective, but a high school in which science is used as one of the tools by which a liberal education is obtained.[111]

The Brooklyn Technical High School is a polytechnical high school for boys; selective enrolment is about 5700 of whom, at the time of admission, about ten per cent are selected for the Honors classes in the school; in these classes they must maintain an average of eighty-five per cent. Segregation is effected only in classes in which students do superior work. Courses include aeronautics, architecture and building construction, art, chemistry, electricity, mechanics and technical college preparation. Some of these courses in the third and fourth year are on a differentiated basis. Highly trained teachers, good library facilities, considerable guidance personnel, and a very large number of well equipped shops are accepted features of the school.[112]

The High School of Music and Art is of course concerned with the admission of boys and girls talented in music and art; it is reported that only about ten per cent of the 1800 students wish to make a career of art and music and that the rest desire it because of special interest and its

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[110] William S. Dutton, "Dr. Meister's Beautiful School," Reader's Digest, Volume LXIX, No. 411, July, 1956, pp. 196-202. Reported from National Parent-Teacher, June, 1955.

[111] Paul Witty, "Education for the Talented and for Leaders," Teachers' College Record, Volume 57, No. 5, February, 1956, p. 298.

[112] Weitz, op. cit., p. 14.

value in leadership positions.[113] Admission is selective and the five academic subjects along with the three courses in art or music make a heavy demand on the student's efforts.[114]

Stuyvesant High School is designed for boys of high mental ability who wish enriched courses in mathematics, science, and mechanical arts.[115] There are Honors classes in mathematics beginning with tenth year mathematics which continues through Grades XI and XII in which advanced mathematics is given up to the level of solid geometry and spherical trigonometry. In Grade XII two college-level electives are given, which have been recognized for advanced college credit. Physics also has Honors classes where work of high calibre is done. The school participates in the Westinghouse Science Talent Search.

Some use is made of homogeneous grouping and there is some provision for acceleration. The School has about 2800 students and accepts about 800 new highly selected students each year. The average I.Q. is 130. All students take the curriculum of English, social studies, language, science, mathematics, fine arts, mechanical arts, music, and health education. A few special scholarship classes are offered to students with records of high achievement.[116]

Hunter High School under the wing of Hunter College is for girls only;

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[113] Weitz., ibid., p. 14.

[114] Havighurst, op. cit., p. 80.

[115] Weitz, op. cit., p. 15.

[116] Havighurst, op. cit., p. 81.

it does not have a special purpose[117] although its curriculum is largely college preparatory. Its admissions are from outside schools on a basis of highly competitive tests. It enrols about 1100 students from Grades VII to XII; the girls from the Hunter Elementary School are enrolled without examinations. The I.Q. range is from 120 to 165.[118] The students are grouped according to achievement for a heavy program including four years of English and five years of foreign language, three years of which must be in Latin. The school participates in the Westinghouse Talent Search. As said above, there are many specializing schools in New York that concern themselves with gifted students although a few are interested in special talents which give some support to the view that there is close correlation between special talent and giftedness.

The High School of Performing Arts established in New York in 1949 under Dr. Franklin Keller, a concert pianist, now enrols about six hundred students who have passed auditions given by the dance, music, and drama departments of the school. No I. Q. tests are given for admission although as in the High School of Music and Art, the median I.Q. is above average, being 116. Science, mathematics, and foreign languages are included in a heavy academic program as many of the graduates go to college.[119] For many of the students this school is a career one giving terminal education for

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[117]Meister, op. cit., p. 220.

[118]Roberts, op. cit., p. 7.

[119]Roberts, ibid., p. 9.

boys and girls who wish to become professional dancers or musicians.[120]

The specialized schools give attention to general culture; they are in a more favorable position than the regular high schools to create an environment conducive to cultural growth. The human mind develops best in creative and meaningful experience and the integration of constants and variables into an organic whole around a central purpose. Homogeneity of grouping with reference to interest, ability level, and terminal aims gives opportunities for closer association of relevant ideas. Though the curricula may look the same for the specialized and for the general high school, the teaching and the learning which result are distinctly different.[121]

Integration of curricula is the feature of the four high schools who claim to make special provision in English and social studies for selected groups of intellectually superior children. Unusually creative teachers with a special subject interest have helped to make these college preparatory specialized schools more effective in their purposes. In one of the schools, a program of "Cultural Backgrounds" is designed for the selected group in each of the high school grades.[122]

Some of the specialized or career schools give only terminal courses and select their pupils on a basis of interest and potential ability rather than on the basis of high academic standards. Brooklyn High School of

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[120] J. Wayne Wrightstone, "The Career High School," Educational Leadership, Volume XIII, No. 4, January, 1956, p. 238.

[121] Meister, op. cit., p. 220.

[122] Weitz, op. cit., p. 24.

Automotive Trades, Brooklyn High School for Homemaking, Central Commercial High School, and Machine and Metal Trades High School give terminal education in the fields indicated by the names of the schools. Central High School of Needles Trades, Food Trades High School, and Manhattan High School of Aviation Trades are specialized schools concerned with training workers for the industries indicated. Metropolitan Vocational High School includes many schools within its organization, such as the Maritime High School. The school is actually the home of the School of Performing Arts as well as general vocations courses. The School of Industrial Arts is a specialized high school admitting talented young students by special entrance examination to courses in architectural drafting, commercial art, fashion design, and other vocational courses.

Washington Irving High School is a comprehensive high school in which girls may receive specialized training in the fine and applied arts. This prepares them for admission to advanced schools or colleges or entrance into such occupations as dress or textile design.[123]

It is reported that both interest and aptitude are required for admission as these schools prepare many of their students for entrance into college or technical institutes; others may select terminal courses and then enter into technical trades, industry, or business occupations. It is maintained that these schools provide many students with a purpose and a center of interest unlikely to be achieved in the ordinary high school.

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[123]Wrightstone, op. cit., pp. 239-240.

North Carolina

North Carolina reports that at Roxboro High School there is an "English Honor Society" which, according to Grace Clayton of the English Department, proves effective for promoting the growth of the gifted pupils.[124] Selected students are encouraged to mark papers, do creative writing, and seek supplementary information on additional topics.

Ohio

Cleveland, Ohio, provides for the homogeneous grouping of about thirty-eight classes in over twenty of the elementary schools. The classes, known as Major Work Classes, emphasize enrichment with socialized procedures in which the teacher is a participant. Seven objectives are laid down by the superintendent, Charles H. Lake,[125] which involve additional activities intended to stimulate the pupils socially, emotionally, physically, and mentally. Activities must challenge the pupil so that he may get satisfaction from achievement and develop good study habits.

The administration of these classes varies and the program in each school depends on the considered needs of the pupils. Classrooms are informal and well-equipped with cupboards, books, globes, maps, and pictures. Special instruction in art, intensive work in language and literature, typewriting, French, creative writing, making reports and book reviews, and writing articles or editorials for school papers are all

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[124] Witty, op. cit., p. 192.

[125] Witty, ibid., p. 195.

activities.[126] The pupils have trips to industries, museums, and concerts. Students provide reports on geography, history, or hobbies and each is expected to give a five-minute talk on some subject of his own choosing each day. Because of the children's long interest span, work may be planned in large units, particularly in projects and social studies.

No acceleration or double promotion is permitted and the enrichment varies from teacher to teacher.[127]

As a result of a number of evaluative studies a revision of programs and procedures is being effected. However throughout the plan there has been an intention to enrich rather than to hurry the pupils. The school has had the benefit of advice from psychologists such as Dr. Henry Goddard who was engaged as a consultant in the beginning of the work in 1920. There has been constant effort to eliminate needless drill and to see that the pupils are not isolated from others in the routine school activities of physical education, playground, and gymnasium or chorus work programs. Pupils have moved on from the Grade VI group to junior high school where the program is not as highly developed as it is in the elementary level. However the Jefferson Junior High School was organized in 1925 and the movement spread for establishing continuing schools for these graduates of the elementary schools.[128] Emphasis was on leadership and social

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[126]Arch O. Heck, The Education of Exceptional Children. New York: McGraw-Hill Book Company, 1953, p. 379.

[127]Brock Rideout, "Educating Gifted Pupils," School Progress, April-May issue, 1956, p. 32.

[128]Merle R. Sumption, Three Hundred Gifted Children. New York: World Book Company, 1941, p. 41.

relationships in an effort to create social sensitivity and a realization on the part of the pupil of his potentiality and responsibility to society. Havighurst[129] reports that there are three special classes in junior high and three in senior high schools so that fifteen hundred gifted children are receiving special treatment.

Oregon

Portland has been the center of considerable study of provisions for gifted children and those possessing special talents in various fields as well. Some work had been progressing under the guidance of the teaching personnel of Reed College and a high school staff. In 1952 a Ford Foundation grant was made for the study of the education of the gifted in the Portland Schools. A five year project was started by a group of about seventy teachers, principals, and consultants from Reed College. Decisions, studies, and objectives were developed and published in a report,[130] and after a year and a half of operation a second report was issued.[131] The project is administered under the direction of a liaison committee composed of two representatives from Reed College and two from the office of the Superintendent of Portland Public Schools. A teacher from each elementary school staff is appointed as a coordinator in that building and is released half

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[129] Havighurst, op. cit., p. 83.

[130] Fund for the Advancement of Education, Bridging the Gap between School and College, June, 1953.

[131] Progress Report No. II of the Cooperative Program for Students with Exceptional Endowment, Portland Public Schools Gifted Child Project, April, 1954.

time from teaching; he works with the consultant from the college and helps teachers plan programs to meet the needs of the gifted in the homerooms.[132] Considerable test information was available for the fifth grade pupils and so the project instituted further testing of about a third of these pupils. Committees set about developing techniques for discovery of talent in seven areas: art, music, mechanical comprehension, creative writing, creative dance, creative drama, and social leadership.[133] A three week workshop was held for teachers in the summer of 1952 and plans were discussed for the work of five appointed committees to deal with identification, public relations, and the school program in the elementary, the junior-senior, and the intermediate grades.[134]

Varieties of programs were set up under the direction of the homeroom teacher and the coordinator of the school. Enrichment was sought in the regular classroom and the consultant provided opportunity for the exchange of ideas among the various schools involved in the project. The type of enrichment varies with the needs of the superior pupils in each classroom.[135]

However, it appeared justifiable to form a few small special interest classes meeting two or three periods a week.[136] Such groups are concerned with enrichment in the fields of mathematics, foreign languages, science, creative writing, rhythms, music, creative drama, and social leadership.

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[132] Portland Progress Report, ibid., p. 9.

[133] Portland Progress Report, ibid., p. 9.

[134] Portland Progress Report, ibid., p. 19.

[135] Portland Progress Report, ibid., p. 30.

[136] Portland Progress Report, ibid., p. 30.

Spanish is taught in two elementary schools, French in one, and German in another. Spanish classes were started in 1952 with the fifth grade pupils who have showed continued interest and progress; conversation, dialogue, discussion, games, and drama are the instructional means used in the foreign languages. Arithmetic enrichment classes are of two kinds. There are two groups of Grade VI pupils whose regular work is enriched by a study of history of number concepts, other systems and relationships between arithmetic, algebra, geometry and trigonometry. Three years of this enrichment should give advanced standing in mathematics at entrance into high school. The other kind of special enrichment applied to superior students in Grade VIII where in special classes they reviewed fundamentals and their application to daily living, consumer arithmetic, and the relationship between arithmetic and higher mathematics.

Test data and observation notes from the elementary schools are sent in the summer to the high schools when the pupils are about to enter Grade IX. The coordinator and the counsellors then decide policy regarding the placement of gifted children among the freshman classes. Experimentation is providing for some special classes of gifted, the distribution of thirty-three per cent gifted to some classes and up to fifty per cent gifted students to other classes. Advanced reading, research work, practice in selecting and organizing material, creative writing, and rhythmic expression are features of the enrichment in both regular and special classes. Orientation in the school is emphasized early in Grade IX. Films were shown indicating methods of research and the use of the library.[137]

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[137] Portland Progress Report, ibid., p. 42.

In the high schools teachers have been given more time to deal with the project; programs vary in the different schools although the objectives concerned with the development of resourcefulness and encouragement of special interests are paramount. Most of the high schools participating in the project have set up "seminars" as special sections of required courses. Some of these seminars represent an additional elective opportunity and give scope for the special interest of small groups of students. Again these seminars may lead to acceleration so that the student can enter college at an advanced level in selected fields. It is intended that the seminar will be a center of activity giving freer exploration of problems as they emerge in the group. The teacher is important as a leader and the visits from the staff of Reed College are important in this encouragement of special interest. Thus, whether the aim of the seminars be acceleration or enrichment, there is an emphasis upon student initiative and participation in small groups in areas of social science, literature, science, or mathematics.[138]

A number of evaluative studies are being made concerning better procedures of identification, characteristics, and evaluation of the methods used for meeting the needs of the gifted children.[139]

The Portland Project group has cooperated with the Youth Development Program at Quincy, Illinois. The exchange of ideas on research and program

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[138]Portland Progress Report, ibid., p. 34.

[139]Portland Progress Report, ibid., p. 45.

development has been possible through the consultant services of the Quincy staff.[140]

Great care is given toward informing the public, the parents, and the staffs of other schools not included in the project. Community groups, newspapers, radio, and television are all used to achieve optimal publicity. Various community resources have been utilized in the specialized courses.

Pennsylvania

Philadelphia has a number of academic schools which make provision for superior pupils. Central High is a boys' school where admission depends on moderate I.Q. ratings and high achievement scores. Capable students carry five solids, or constants, and physical education.[141] College preparatory courses are given since many students enter college with advanced standing. Philadelphia High School for Girls allows the most able students to take five solids as well as physical education. The girls in the segregated classes show a love of learning and a sense of responsibility for service to society and are not conceited.[142] Overbrook High forms achievement classes for its bright students; thirty-five students form a group which moves as a block for the five solids: geometry, English, history, foreign language, and biology.[143] Students are placed in homogeneous groupings so that each pupil may receive appropriate teaching.

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[140] Portland Progress Report, ibid., p. 49.

[141] Roberts, op. cit., p. 11.

[142] Roberts, ibid., p. 12.

[143] Roberts, ibid., p. 12.

Allentown has twenty-one elementary schools from which are gathered a special group of over eighty pupils with I.Q. rating 125 or above.[144] These pupils are placed, with the parents' approval in three classes of Grades IV, V, and VI and are given an enriched program. It is reported[145] that in the Jackson School, "Segregation has been practised for over thirty years and has public cooperation and support."

Basic skills are taught for half the day at each grade level according to the regular curriculum. Special interest subjects suitable to each class constitute the other half of the program for the gifted. Typing is taught in Grade VI. The children learn the keyboard and the uses of the other parts of the typewriter. Routine exercises for skill and speed are followed by the typing of class and school activities. One enrichment project is a reviewing activity of books and of reviews. Reviews of books are read as well as the books themselves. Discussion culminates in evaluation of the reviews and the writing of new ones. Recommendations are made as to which books school libraries should purchase. The children enter the Opportunity Classes at the fourth grade and remain in them until the end of Grade VI. They then attend the junior high schools in their respective areas unless they wish to continue the study of Spanish. Spanish classes feature conversation, games, plays, poems, and original songs. Those pupils who wish to take Spanish in junior high school are sent to a

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[144] Havighurst, op. cit., p. 90.

[145] "A Study of Education for the Gifted Child in Public School," Toronto Public School Board, 1955, p. 17.

special one where they are placed among the pupils of high ability.[146] They are excused from social studies classes for three twenty-minute periods a week in order to take Spanish.

Community resources are utilized;[147] field trips, outside speakers, radio addresses, visual aids, and exhibits are examples of this form of enrichment activities.

Colfax School in Pittsburg is an elementary school that operates an enrichment program on a platoon plan for its gifted children. It is a partial segregation plan whereby special workshops are set up for the gifted who spend one half the day in them taking the skill subjects in a more informal atmosphere than in the regular classrooms where they take the other special subjects.[148] Hedwig Pregler, the principal, says the workshop plan provides the maximum opportunity for the group acceptance of the individual child, and for the child to work at his capacity among his mental peers.[149] The workshops frequently change leaders so that opportunity is given for cooperation and leadership training. Discussions, research, reports, evaluation, sharing of ideas, and pupil-teacher planning are features of the system. Emphasis is placed upon the acquisition of individual skills and work habits; teacher conferences are arranged to provide adjustment of courses to individual needs; German and typewriting

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[146]"Final Report on Practices in Other School Systems," Committee on Gifted Children, Calgary School Board, February 10,1954, p. 4.

[147]Barbe, op. cit., p. 227.

[148]Veronica Wolfe, "Special Workshops Enrich School Days for Gifted Pupils," School Management, February, 1948, p. 27.

[149]Hedwig O. Pregler, "Adjustment Through Partial Segregation," National Elementary Principal, Volume 19, September, 1952, p. 243.

as well as field trips are included in the work.[150]

Texas

In Houston the English teachers have challenged the superior students in the heterogeneous classes by small work groups, individual conferences, and special assignments in regular class work.[151] Development of imagination, full understanding of reading material, writing of summaries, and discussion of allusion and comparative attitudes of authors are emphasized. Conferences deal with term projects, general progress, and reading interests.

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[150]Havighurst, op. cit., p. 95.

[151]Ruth Reeves, "The Gifted Student in the Literature Class," The English Journal, Vol. XLV, No. 8, November, 1956, p. 462.

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CHAPTER III

EUROPE AND ELSEWHERE

There is evidence that many countries in Europe meet the needs of gifted children by subsidizing their education at the secondary level.[1] However, with the exception of Germany, few countries make provision for assistance at the elementary level. France, Belgium, and Switzerland have recently shown interest in this problem.

Germany

In Germany there appears to be more official recognition of the need for special education on the basis of mental endowment than in any other nation. Concern for equality of opportunity does not apparently prevent special provision for the gifted. Hamburg established a fund to assist the education of mentally superior students. Children of promise have been selected systematically for many years. A report[2] from Charlottenburg shows that a section for bright children had been established in the schools there even before 1914. Breslau, Hamburg, Mannheim, Leipsic, Frankfurt, Gottingen, and Berlin have reported experiments with gifted children since 1918. The Begabtenschulen were established in Berlin in 1917 for the education of children of superior capacity. Pupils

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[1]Merle R. Sumption, Three Hundred Gifted Children. New York: World Book Company, 1941, p. 17.

[2]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1926, p. 282.

are selected on the basis of mental tests. Reports[3] indicate that children chosen by this method are very ambitious and that the majority make rapid progress. In these schools acceleration permits the pupils to complete the preparation for higher education in three years less time than that ordinarily required. A differentiated curriculum is stressed for the boys, but girls are not excluded from its provisions. In 1918 Breslau organized two Sonderklassen[4] for the very gifted, one for girls and one for boys. Children of approximately twelve years of age are admitted on the basis of mental tests, supplemented by teachers' recommendations.

Great Britain

Great Britain provides bursaries that enable superior youths to pursue advanced work in college.[5] Opportunities for superior children are also to be found in the secondary technical and grammar schools. These schools are attended by the most able twenty-five per cent of the children of high school age. Rigid examinations are set at the age of eleven years for those pupils who wish to enter the grammar schools. Considerable research is now being done by the National Foundation for Educational Research on methods of selection. In a recent article Baron[6]

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[3] Ibid., p. 283.

[4] Ibid., p. 283.

[5] Letter from the London Ministry of Education, April 26, 1956.

[6] George Baron, "Secondary Education in England: Some Present Day Trends," Teachers' College Record, Vol. 57, No. 4, January, 1956, pp. 213-219.

reviews the nature of undifferentiated education in the English schools. The Norwood Report[7] established a tripartism in classifying children for grammar schools, technical schools, or schools for those children whose "minds turn on the immediate interests in the concrete." In 1945 the Labor government[8] tried to establish equality of status. At that time central high schools and junior technical schools were established which became known as the Secondary Modern School and the Secondary Technical Schools respectively. The Grammar Schools, however, remained selective on the basis of intelligence and achievement tests given in the last year of primary school when the child is between the ages of ten and eleven. So while there were tests of academic ability there were no good tests for the technical and practical abilities also postulated in the tripartite system. The movement of comprehensive schools with provision for selection after one or two years was protested by the Grammar Schools and the Secondary Technical Schools. The teachers of the Grammar School said:

> ...the most able children should continue to be educated among their equals in schools which have proved themselves and which are firmly linked with long standing traditions of literary and scientific scholarship.[9]

The teachers of the Technical Schools maintained that:

> Their schools gain by singleness of purpose, expressed through unity of interest of their staffs, and their close understanding of the industries which they serve.[10]

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[7]Ibid., p. 213 (Board of Education,"Curriculum and Examinations in Secondary Schools," (H.M.S.O., 1943) Chairman, Cyril Norwood.)

[8]Ibid., p. 214.

[9]Ibid., p. 216.

[10]Ibid., p. 216.

The Conservatives still wanted differentiated schools, but some local areas built comprehensive high schools. Teachers of Modern Schools were urged to base their teaching on the needs of the pupils and encourage active participation in projects. They were told that the approach to teaching English should be creative and dramatic and that a flexible and imaginative treatment of arts and crafts was desired. Teachers trained in the Grammar Schools found it difficult to adjust their teaching to this injunction.[11] A large majority of the pupils attend the Modern Schools, with the superior students entering the Grammar Schools and the Technical Schools.[12] Approximately one quarter of those who enter, leave at the end of the first stage when they are about sixteen or seventeen years of age. Many of them are children of unskilled or semi-skilled laborers who do not appear to have an interest in the studies which comprise the program of the Grammar Schools.[13]

Turkey

In Turkey the government has initiated a program for gifted children. There is a Special Education Division in the Ministry of Education. The Director works closely with the staff of the National Teacher Training Institute for the preparation of teachers for mentally retarded and for gifted children. Laboratory projects have been

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[11] *Ibid.*, p. 219.

[12] *Ibid.*, p. 219.

[13] *Ibid.*, p. 219.

established in three elementary schools for the selection and study of superior children and for experimentation with a program of enrichment.[14]

Russia

In Russia uniformity of curricula is one of the distinctive features of education on all three levels of the ten-year school program. In the Soviet educational system the selection process is of great importance. It operates to give extensive education to a few of the fittest and limited education to the many who get what Stalin has called "education sufficient to become active participants in social development."[15] Heavy curricula and academic selection by tests have usually eliminated many students so that, in the thirties, only about forty-five students per thousand graduated from the ten year program. "The Soviet system succeeds in weeding out the least fit rather than in attracting and harnessing intellectual talent."[16] Consequently in 1939 only about seven per cent finished the tenth year of school. However, by 1954 fourteen per cent or 126 per thousand of the 1944 entrants finished the program. Tuition fees, the labor reserve draft, and the military draft impose limitations upon educational opportunity.[17] Education of the superior, however, is encouraged. In 1955 it is reported that there were four

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[14]Christine P. Ingram, "Education Service in Turkey," Exceptional Children, Vol. 22, No. 1, October, 1956, p. 46.

[15]Nicholas De Witt, Soviet Professional Manpower. Russian Research Centre, Harvard University. National Science Foundation, Washington,1955, p.46.

[16]Ibid., p. 48.

[17]Ibid., p. 50.

hundred thousand students taking post high school work. Payments are made to students and those who receive top marks are given a twenty-five per cent bonus. If marks are poor the student is expelled.[18] Admission to higher educational institutions for specialized training is on the basis of nation-wide competitive examinations.[19] These specialized training institutions for students graduating from the ten-year schools are divided into seven categories: agriculture, transport, industry, teacher training, public health, arts, and sciences. The emphasis is on the training of specialists. Benton[20] states that there are state scholarships for all who have talent and that from eighty to ninety per cent of the students have such assistance.

Australia

Public education in Australia is the responsibility of the respective State Departments of Education. New South Wales is the only state that makes provision for gifted children.[21] Special classes, known as Opportunity C classes have operated since 1932. There are now thirty-two classes in eleven centers in the Sydney metropolitan area which contains about half the population of the state.

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[18]Correspondent's Article, "The Educational Drive in Russia," School Progress, December, 1955, p. 35.

[19]"Soviet Education," Editorial, The Atlantic Monthly, Vol. 191, No. 4, April, 1953, p. 10.

[20]William Benton, "Soviet Education," Education Digest, Vol.XXI, May, 1956, p. 4.

[21]Letter from J. J. Pratt, Acting Director of the Office of Education, Commonwealth of Australia, November 22, 1956.

The classes operate in Grades V and VI, the last two grades of the Primary School. Various schools prepare lists of names of children with an I.Q. of at least 125 who are between 9.6 and 10.9 years of age and who have good achievement in English and arithmetic. The Department of Education examines the record cards of the pupils named by the schools. Parents are invited to visit opportunity classes. They are asked to permit their children to undergo further testing of intelligence and attainment. After this testing, the final selection of the children for the special classes is made. Medical fitness is a requirement. Usually the boys and girls are in separate classes although there are four mixed groups. It has been the policy to have a balance of male and female teaching staff. Teachers are specially selected for these classes which are under the direction of the Supervisor of Opportunity Classes and the school inspectors.

The normal Grade V and VI program is covered, but it is enriched by a variety of activities and approaches and by a more intense treatment of topics. Individual and group research is encouraged. Teachers develop their own educational methods, and, from time to time, they meet to discuss common problems and to view demonstrations and exhibitions of work.

At the end of the second year in an Opportunity C class, gifted children transfer to an appropriate secondary program. These pupils usually attend a five-year high school, admission to which is competitive. Here they select courses with an academic, commercial, technical, or home science emphasis. Generally, they include at least one foreign language

in addition to the common core of English, mathematics, physical education, and science.[22]

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[22]Report by the Department of Education of New South Wales on Opportunity C classes for Superior Pupils.

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CHAPTER IV

PARTICIPATION IN PROGRAMS BY INDUSTRIES AND COMMUNITIES

The literature reveals that an increasing number of communities are cooperating in programs of assistance for the gifted. The activities described in the previous chapters indicate many enrichment projects that depend on such assistance in matters of resources and personnel. Talent searches, Science contests, Pepsi-Cola Scholarships, Industrial Foundations, Public School Projects, and Manpower Conferences have emphasized public concern over the matter. The Edison, Kellogg, and Carnegie Foundations all attract attention to the problem of effective education of the gifted. In many of the cities superior pupils visit centers of interest, industries, and public libraries. In many schools persons in public positions are invited to speak to the students. The American Cyanamid Corporation[1] allows bright students to assist in the company's laboratories. The Stanford Committee[2] on the Gifted found over a hundred companies willing to appoint educational representatives who would provide speakers for classrooms and arrange for student visits to the plants. Meeting people of varied intellectual interests stimulates a bright pupil. His horizon is broadened to an appreciation that there is a world of the mind in which he may have a place. Many large corporations have given help to 4-H Clubs by supplying materials and consultants and have assisted in sponsoring

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[1]Norma E. Cutts and Nicholas Moseley; Teaching the Bright and Gifted. Englewood Cliffs, New Jersey : Prentice-Hall Inc., 1957, p. 79.

[2]Ibid., p. 79.

Achievement Days for the public display and judging of the work of the members.

Contests such as the Atlantic Monthly's Award for writing, The $64,000 Question, or The Big Surprise arouse interest in learning and, regardless of the size of the award, they stimulate competition and respect for persistent effort of high quality. A booklet, Classroom Aids for Teachers, issued by the Alberta Department of Education lists many organizations and industries that have consented to supply, upon request, informative literature, display material, and visual aids to schools.

Most centers have some individuals or groups who are willing to aid bright and talented children. Service clubs and many other organizations have traditions of helping young people. Local scholarships are often provided to encourage greater achievement by the superior students and public recognition of it. Libraries, church groups, hobby clubs, recreational agencies, Scout groups, and private teachers offer a variety of activities in which the gifted may take part. Cleveland has a number of people who meet once a month to discuss gifted children and help them with extracurricular programs. New Canaan, Connecticut, has an art group which exhibits young artists' pictures, a Town Players' Club which gives parts to young actors, and a Junior Audubon Society.[3] In the Malvern School in Shaker Heights, Ohio, the mothers assist by taking groups of

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[3] Ibid., p. 77.

pupils to libraries, museums, food terminals, and industrial plants.[4] In Portland great pains are taken to inform the public concerning the objectives of the Portland School Project. The Dayton Boys' Choir[5] is sponsored by the Rotary Club in Dayton, Ohio, and is trained by a member.

Hobbs[6] relates many of the activities provided by the Brooklyn Children's Museum for all children and particularly for those with special interests. The Museum serves children from four to fourteen years of age. A very large number of enrichment activities are sponsored by the Museum. The Experiment Club tested different compounds such as dextrin and aluminum sulphate. Some studied qualitative analysis after the regular meetings. The Chemistry Club analyzed various chemicals and studied the preparation and use of oxygen and dyes. The Physics Club studied gases and performed many experiments. A Construction Club made a telegraph set, a camera, and a periscope. The History Club had to be divided one year into two weekly sessions as its membership enlarged. The oldest club in the Museum is the Stamp Club which edits a journal on stamp collecting known as the "Watermark." The members of the club study new issues and unusual stamps, watermarks, and design. Animal life received much attention and many clubs such as the Bird Club, the Marine Club, the Animal Club, and the Nature Club carried on extensive studies of the various forms of life.

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[4]Robert J. Havighurst, Eugene Stivers, and Robert DeHaan, "A Survey of Gifted Children," Supplementary Educational Monographs No. 83, Chicago: University of Chicago Press, November, 1955, p. 87.

[5]Ibid., p. 86.

[6]Nicholas Hobbs, "Community Recognition of the Gifted," The Gifted Child. Edited by Paul Witty; Boston: D.C. Heath and Company, 1951, p. 180.

A Microscope Club dissected specimens and observed life functions of living organisms. A Nature Club concerned itself with the general appearance, movement, and habitat of insects, birds, reptiles, and mammals.

Besides these activities the Museum arranges a Science Story Hour for children of ages four to six and lets them perform simple experiments. A newspaper is written and illustrated by the children. Books, music, and field trips add to the enrichment experiences provided.

The Bronx High School of Science makes use of college research laboratories, Zoological Gardens, and the Museum. New York academic high schools receive exhibits circulated by the museums, and secure help from the public in the Science Talent Search contests. The librarian in Dallas, Texas, conducts creative writing groups for the talented elementary and high school pupils.[7] The Worcester Art Museum[8] offers professional instruction in art to over a thousand children from four to eighteen years of age. Classes are free and open to all young people of the area. The purpose is to provide all interested children with early experience in the practice, understanding, and enjoyment of art. Groups are usually of the same age and meet on two week days after school and on Saturday mornings. The subjects taught are painting, drawing, block printing, and modelling with clay and other materials. Students who show exceptional ability are encouraged to enter the Museum's school for the professional study of art. Cooperation is close between the school and the museum. Teachers use

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[7]Havighurst, op. cit., p. 96.

[8]Ibid., p. 60.

materials from the museum such as slides, photographs, books, records, periodicals, and exhibits. The museum also offers, in collaboration with Clark University, a teacher-training course concerned with methods, media, curricula, and sources for art in the schools. The Worcester Girls' Club[9] is a private organization that presents to school girls a program designed to promote physical and mental health, to furnish training in the home-making arts, and to stimulate interest in a wide range of cultural subjects. Several thousand girls each year receive service through the club from many volunteer workers who assist the small permanent staff. Dramatics, music, and dancing are among the activities provided. Parents are enlisted to help in preparing costumes.[10] The girls from nine to fourteen are trained in solo and choral work. In 1933, Lawrence, Kansas, established two programs for art groups.[11] One is a Children's Summer Studio or art school for children from kindergarten through high school sponsored by the Recreational Council which provides four weeks of half-day sessions each summer for the study of painting, art, and crafts. The University of Kansas also sponsors art classes in special seminars for children from Grades I - XII of the Kansas schools. Each semester about a hundred children voluntarily engage in drawing, painting, clay modeling, woodcraft, weaving, carving, and paper craft. Student-teachers assist in the program of stimulating the children to do more creative work. Some of

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[9] Ibid., p. 60.

[10] Hobbs, op. cit., p. 178.

[11] Havighurst, op. cit., p. 56.

the classes meet in the art museum, school classrooms, and art education rooms of the university. Classes are usually limited to twenty. The Peabody Museum of Yale University has a School Service Department[12] which enables docents to arrange visits, tell stories, and teach lessons in all phases of natural history. Bright children draw books from the museum and use its exhibits. In Norfolk, Connecticut, The Ellen Battell Stoeckel Trust[13] maintains the Norfolk Music School of Yale University which offers instruction in painting, drawing, and the modern dance to local children. Teachers choose the pupils for the classes which are held two mornings a week during August. At the playground in Bernardsville[14], New Jersey, experiences in "painting, crafts, music, drama, and creative writing are offered. Once a week the results of work in all these areas is combined into some form of group presentation. The children are further stimulated by talks and exhibits by adults from different countries and cultures."[15] The Chicago Art Institute[16] permits displays of current work of its artists in the corridors and classrooms of the New Trier Township High School. Palo Alto is making good progress in the area of community understanding. The Parent Teachers' Association Council has helped in providing an opportunity for communication with parents through council representatives:

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[12]Cutts, op. cit., p. 78.

[13]Ibid., p. 78.

[14]Hobbs, op. cit., p. 176.

[15]Ibid., p. 176.

[16]Havighurst, op. cit., p. 46.

> Many PTA's are sponsoring study programs so that parents can become more informed about what we are doing. The AAUW has formed a study group on gifted children. All teachers have been given information on the program at each level so that they can answer accurately any questions parents ask during the parent conference period. In addition to three newspaper articles and the handbook, three multilithed publications have been made available through the principals to the parents.[17]

Resource persons from the community speak to students in the San Diego schools. Citizens are members of the steering committee that plans the curriculum. An art class visits the art gallery each month for a planned series of studies, and students interested in astronomy go to the Mount Palomar and Griffith observatories.[18] The Carnegie Institute[19] conducts free art classes on Saturdays and during the summer for talented students of the Pittsburg area. Pupils are accepted into the program at Grade V for a five year course, or at Grade VIII for a three year course. Any of them may then be recommended for further high school classes in the College of Fine Arts at the Carnegie Institute of Technology. The Institute also sponsors a yearly nature study contest for elementary and high school pupils. The Institute also conducts a nature club on Saturdays for seventh graders which features illustrated lectures and field trips. The Youth Development Commission in Quincy, Illinois,[20] is developing a

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[17] Research Resume, No. 2; Gifted Child Education in California. State Advisory Council on Educational Research, December, 1955.

[18] Havighurst, op. cit., p. 43.

[19] Ibid., p. 94.

[20] Helen E. Roberts, "Current Trends in the Education of Gifted." California State Department of Education, Sacramento, October 25, 1954, p. 44.

community program, in which a staff of volunteer counsellors from the local community are being trained to work with individual children.

In 1946 a scholarship project was set up under the National Association of Secondary School Principals, a department of the National Education Association. Scholarships are awarded to the college-bound students after careful testing of the top three per cent of the senior class members of the National Honor Society. This includes the top fifteen per cent of students rating academically high and having good recommendations from their schools. Dr. Paul Elicker[21], executive secretary of the National Association and secretary-director of the National Honor Society Scholarship Project reports that from 1946 until 1955, 29,660 boys and 37,269 girls qualified for membership. These talented youth come from all types of homes and parentage in rural and urban areas.

In 1951, the Ford Foundation[22] established a Fund for the Advancement of Education which supports a plan for early admissions to college and other fields of study associated with the advancement of education. William Nims, Assistant Secretary of the Ford Foundation, also reports that the Foundation is interested in the National Merit Scholarship Corporation program designed to discover talented senior high school students and give the most deserving of these financial assistance toward

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[21]Paul Elicker, "Honor Classes," NEA Journal, Volume 45, No. 4, April, 1956, p. 225.

[22]Letter from William H. Nims of the Ford Foundation, September 25, 1956.

a college education.

In 1942 the Westinghouse Electric Corporation undertook financial support of a nationwide Science Talent Search that was intended to stimulate scientific interest and experimentation among high school students and to select those likely to be creative scientists. Scholarships were established. The annual search is conducted by Science Service located in Washington. Throughout the world this organization has encouraged the formation of about fifteen thousand Science Clubs in which the members are enabled, through their junior and senior high school careers, to do projects that acquaint them with the method and practice of scientific research. These Science Clubs receive cooperation from industries, educational institutions, newspapers, and scientific organizations in cities and states throughout the country. Science Fairs are sponsored by newspapers and school systems and the National Science Fair is a culmination of the local ones. By arrangement with the Science Clubs several State Academies of Science have, since 1946, held State Science Talent Searches concurrently with the national competition. Many school systems and states have extended an active interest in this field. Senior students who enter the National Science Talent Search are automatically eligible for the state search and thus augment their chances of receiving financial assistance. Since the requirements for the Westinghouse Science Scholarships are rigorous, a large number of the fifteen thousand contestants are eliminated, first, on the basis of a Science Aptitude Test, and, secondly, on the basis of their high school records and recommendations from their teachers. The remaining three hundred are required to write an essay on a scientific

project being carried out by themselves. From these, forty are selected each year to attend the Science Talent Institute in Washington, D.C. to compete for the top scholarships. Honorable mention is accorded the remainder of the three hundred, and, in the words of Davis:[23] "This recognition is fostering an ever-increasing general interest in science and is encouraging young people to develop their talents."

Dr. Mary Holman of the guidance department in the schools of Orange, New Jersey, interested a number of people in the need for financial assistance for gifted pupils in order to prepare them for leadership in the fields of their choice.[24] The Teachers' Association, the Rotary Club, the College Club, private individuals, and two foundations gave money for the establishment of scholarship funds for gifted children in the community.

During Education Week many school projects are carried out in cooperation with communities. Sometime high school students take over the management of public affairs for a day. Cutts and Moseley report[25] a project in Broward County, Florida, where in 1956 students 'sat in' for the county school board for one day, and they asserted that "all the glory is being showered on football players when it rightfully should go to outstanding students." They recommended a scholarship program for

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[23]Watson Davis, of the Science Service, Washington, "Search for Talent in Science," The Gifted Child. Edited by Paul Witty; Boston: D.C. Heath and Company, 1951, p. 238.

[24]Ruth Strang, "Mental Hygiene of Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D.C.Heath and Company,1951,p.152.

[25]Cutts, op. cit., p. 87.

honor students in each of the county's six high schools.

Consultation of the calendars of universities of Canada and the United States reveals that numerous scholarships have been made available to deserving high school graduates by individuals, industries, and other organizations.

In 1954 The National Science Foundation[26] deplored the loss of capable students in the science field and a committee was appointed that made a report known as Encouraging Scientific Talent which was submitted to the Foundation in June of the following year. It would appear that in 1955 there were from sixty to a hundred thousand graduates who failed to enrol in college for financial reasons and another hundred thousand of high ability who dropped out because of lack of interest in a higher degree. Conclusions indicate there is no simple solution for the loss of manpower in the scientific field. But scholarships are urged as assistance to those with insufficient funds. The Buhl Foundation[27] has supported the awarding of first-year college tuition scholarships to high school students of superior ability who otherwise are not financially able to enter university. The program is administered by the Allegheny County Joint Committee, an organization composed of school and civic groups interested in high school graduates of exceptional ability.

The Commission on Human Resources and Advanced Training under

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[26] Higher Education; Vol. XII, No. 3, United States Department of Health, Education, and Welfare, Office of Education, Washington, November, 1955, p. 38.

[27] Havighurst, op. cit., p. 93.

the chairmanship of Dael Wolfle was established in 1950 and works under the sponsorship of the four national research councils - the American Council on Education, the American Council of Learned Societies, the National Research Council, and the Social Science Research Council. Financial support comes from the Rockefeller Foundation. "The Commission is concerned with analysis of the current manpower situation, an historical account of ongoing trends, and a projection of how those trends are likely to affect the future."[28]

This chapter affords a brief overview of some examples of public participation in programs for the gifted. Doubtless there are many other commendable efforts. It is gratifying to note the special help given by museums, libraries, and service clubs. The extension courses of universities and the assistance of such institutes as the Carnegie Institute or the Chicago Art Institute, by supplying resource material and personnel, and by sponsoring contests and scholarships, have been very helpful and have given indirect service by attracting public attention to the gifted. Foundations have been established for the advancement of education. Conventions through the cooperation of industry and educators, have made valuable recommendations. Many research councils and government commissions have studied the relationship of the public to its superior children and have encouraged the establishment of scholarships and other financial assistance for their education.

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[28]Dael Wolfle, "Report on Manpower," Personnel and Guidance Journal, Volume XXXI, No. 1, October, 1952, pp. 6-8.

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CHAPTER V

TEACHER TRAINING AND COUNSELLING SERVICES

Among the provisions for gifted children is the increasing attention given to guidance and training of teachers. Many centers issue handbooks and guides of one form or another. Illinois, Connecticut, Texas, and other states issue handbooks. While many systems have meagre programs, teachers may receive help for individual efforts. Reports of study committees in various areas such as Ottawa, New York, Cleveland, Detroit, Portland, and California summarize pertinent information regarding gifted children.

Conventions and workshops are frequently organized to discuss the characteristics and needs of gifted children. New York had Summer Workshops in 1942 and 1943,[1] and in 1955 the University of Texas Workshop Group[2] prepared a very informative publication on curriculum enrichment for elementary grades. Portland made special arrangements in its project for teacher in-service training in the Workshop of 1952 and again in 1953.[3] Teachers and coordinators in each school building also receive free time for planning programs for the gifted groups. A special workshop on the

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[1] Laura K. Eads, "Research and Experimentation: The Education of Intellectually Gifted Children," Bureau of Curriculum Research. Board of Education of the City of New York, April 20, 1955, pp. 4 and 6.

[2] Curriculum Enrichment for Gifted Elementary School Children in Regular Classes. University of Texas Workshop; directed and edited by Henry J. Otto. Bureau of Laboratory Schools, Publication No. 6. Austin: University of Texas, 1955.

[3] Progress Report No. II of the Cooperative Program for Students with Exceptional Endowment. Portland Public Schools Gifted Child Project, April, 1954, pp. 19 and 22.

teaching of gifted children was held in Palo Alto in 1956[4] and others have been held at San Francisco[5] and Los Angeles. Fresno had a workshop of seventy-five teachers in 1954.[6] Alberta has had workshops on special education which have discussed among other things, the topic of gifted children.

The Horace Mann-Lincoln Institute of School Experimentation is conducting a Talented Youth Project and school staffs are invited to participate in the study of grouping, guidance, acceleration, peer attitudes, and other problems. Many schools are cooperating in particular areas of the study.

Administrators seek teachers possessing good personal qualifications and special training when making educational provision for gifted children. Winnipeg requires that the teacher of a special class must have a college course on the subject and makes allowance for some of the expense thus incurred. The Indianapolis Junior League and the Indianapolis Foundation[7] have provided scholarships for teachers to study the education of gifted children. Selvi[8] commends the plan for training teachers at Teachers'

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[4]Research Resume No. 2; Gifted Child Education in California. State Advisory Council on Educational Research, December, 1955, p. 23.

[5]Ibid., p. 3.

[6]Ibid., p. 9.

[7]Norma E. Cutts and Nicholas Moseley, Teaching the Bright and Gifted. Englewood Cliffs: Prentice-Hall, Inc., 1957, p. 76.

[8]Arthur M. Selvi, "Preparing Teachers for the Education of the Gifted," Educational Administration and Supervision, Vol. 39, No. 8, December, 1953, p. 495.

College in Connecticut whereby they may choose an elective program such as science or a foreign language for specialist training in a particular field. They are thus better informed on the content of the subjects they teach and should be able to give more enrichment. In 1948 Wilson[9] questioned teacher training institutions concerning their courses for teaching gifted children. From the 175 replies it appeared that only six were providing any special courses. Hunter College, the University of Florida, and the University of Minnesota each gave a three credit course on the nature of gifted children and methods of teaching them. Illinois State University Normal gave a three-credit undergraduate course on exceptional children in which one half of the time was devoted to consideration of the gifted. Northern Illinois State Teachers' College provides a similar course in the regular term and in the Summer Session dealing with the identification and needs of the bright and the talented, a review of the literature on experimental programs, and an evaluation of their effectiveness. The sixth institution, Pennsylvania State College, offered a sequence of three courses. A three credit course is given in the regular term. The second is a regular term undergraduate course in student-teaching, including observation, participation, and teaching in classes of gifted children. This course is an extensive one carrying from three to twelve credits. At the graduate level there is a three-credit course covering the characteristics of the mentally advanced and the organization, teaching procedures, and curricular materials for use

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[9]Frank T. Wilson, "Suggestions for the Preparation of Teachers of Gifted Children," Elementary School Journal, Vol. 52, No. 3, November, 1951, pp. 157-161.

in their education. Besides these regular courses there is a one-credit summer course for graduates and undergraduates. Pannsylvania College was the only institution reported that had special laboratory experiences with gifted children and a brief Special Education Conference course on field experience problems. It was also the only one found to have special certification for teachers of classes of mentally superior children.[10]

At many training institutions there are courses concerned with special education, but for the most part the emphasis is on retarded or handicapped children with but a limited treatment of the subject of giftedness. Cedar Rapids, Iowa, has recently included the subject in its teacher training program.[11]

Paul Witty points out that the guidance worker or counsellor can render valuable aid in identifying superior pupils, helping the teacher plan programs, seeking scholarships and other financial assistance, and directing the gifted pupils to community resources that will enrich their interests.[12] He also cites a study by C. Gilbert Wren of the top sixteen per cent of Minnesota high school graduates. Nine years after leaving high school forty-five per cent had received degrees, but only four per cent of those with I.Q. ratings over 125 had earned degrees beyond the baccalaureate. It is concluded that more assistance is needed for the

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[10]Ernest T. Newland, "The Gifted," Review of Educational Research, Volume XXIII, No. 5, December, 1953, p. 424.

[11]Clyde Parker, "A Measured Experiment with Mentally Advanced Children," The American School Board Journal, Volume 133, No. 6, December, 1956, p. 23.

[12]Paul Witty, "Guidance of the Gifted," The Personnel and Guidance Journal, Vol. XXXIII, No. 3, November, 1954, p. 139.

superior students in the form of financial aid and encouragement to prepare for leadership positions in science, education, and other fields where advanced training is needed.[13]

Hunt reports that counselling services are an excellent provision for gifted children and that school counsellors are to be found in forty-three states. He refers to the estimate that sixty thousand students of high ability do not graduate from high school and adds that the fifty per cent increase in full-time counsellors in the past few years should improve the drop-out situation and encourage graduates to go to college. He reports:

> ... according to a recent study of the College Entry Examination Board two-thirds of the high-ability boys who discussed college with counsellors intended to go, while only twenty-one per cent of those who had no counselling intended to go.[14]

Counselling services are becoming more common in large centers. Edmonton, Calgary, Saskatoon, Toronto, Ottawa, and other Canadian cities have established such services in their school systems. In most cases it appears that psychologists have assisted in the identification of the gifted and in the planning of programs for them. In some cities there is a large guidance department and in others guidance officers assist teachers in the work. In most junior and senior high schools in Alberta, for example, provision exists for counselling and guidance services on the

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[13] Ibid., p. 136.

[14] Herold C. Hunt, Address to the Twentieth Century Educational Conference of the Educational Records Bureau and American Council on Education at New York, October 27, 1955. Reported in Personnel and Guidance Journal, Vol. 34, January, 1956, p. 260.

part of teachers and selected guidance personnel. The Mental Health Clinic of the Department of Health sends a team on circuit to many school divisions about three times a year. Children may be referred to the psychiatric and psychological services it provides. Generally the referrals are of maladjusted children and slow learners, although referrals of gifted for guidance reasons are in order.

In the United States many centers such as Long Beach, Portland, New York, Cleveland, Detroit, Los Angeles, and San Diego all report that counselling services are important features of their programs. Counsellors help in identifying and in planning for gifted pupils and they often give occupational guidance as well. In some cities each gifted student in the senior grades is assigned to a special counsellor. San Francisco[15] reports this practice as a policy and also notes that cumulative records are important for follow-up services.[16]

Generally speaking, it would appear that psychologists are utilized more widely than psychiatrists. San Diego has a special class of maladjusted gifted pupils and it is possible that the services of a psychiatrist are more significant in this field.[17] In Ottawa the first school psychologist and supervisor of special classes was appointed in

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[15]Administrative Provisions for Superior Students in the San Francisco United School District; Bulletin No. 166, Fall, 1954. Bureau of Research, San Francisco, p. 6.

[16]Ibid., p. 4.

[17]Research Resume No. 2; Gifted Child Education in California. State Advisory Council on Educational Research, December, 1955, p. 28.

1927. There are three full time psychologists in the system now.[18] Winnipeg has the services of a full time psychologist. Calgary, Saskatoon, and other cities in Canada also employ one or more school psychologists. Portland stresses the importance of its psychological services in the school planning project. Toronto uses many similar services along with the teacher-counsellors and Guidance Departments in the secondary schools. In Alberta a Guidance Director of the Department of Education visits schools and assists teachers through conferences and workshops on the problems involved.

Nelson B. Sewell,[19] Chairman of the Committee on Guidance and Counselling of the California Association of Secondary-School Administrators in 1953 points out that guidance is an individual relationship in which the counsellor applies insight and skill to the assistance of individual students in solving problems or improving attitudes. Guidance programs emerge from the schools' needs. Organization may be of a centralized type around a corps of specialists to whom students are referred; or it may be a decentralized, teacher-type of organization through which guidance is given.

Monroe High School in Rochester, New York has a guidance department responsible for the organization and administration of the entire program.[20] In San Diego, on the decentralized system, teachers,

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[18]Ottawa Public School News, November, 1956, p. 1.

[19]Nelson B. Sewell, Presentation at the Thirty-Seventh Annual Convention of the Secondary-School Principals at Los Angeles February,1953. Bulletin of the National Association of Secondary School Principals, Volume 37, No. 194, April, 1953, p. 39.

[20]Ibid., p. 40.

counsellors, supervisors of subject areas, and the special service department all cooperate in a guidance program. Providence, Rhode Island and Oakland Secondary Schools in California have a centralized system of guidance for the whole program as in Monroe High School.[21]

There is evidence of increased concern for specially trained teachers for gifted children. Although only a few colleges offer such training, several schools require that teachers of gifted classes have special courses. The emphasis on workshops for teachers of special classes is significant. In a large number of the programs counsellors are contributing valuable service in identifying the superior students and planning for them. Whether the guidance work be centralized or carried on by teacher-counsellors its importance is emphasized, and the evidence is that the services of counsellors and psychologists are more highly valued and are being rapidly expanded.

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[21] Ibid., p. 40.

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CHAPTER VI

EVALUATION OF PROGRAMS

The literature leaves no doubt about the value of early identification of gifted children and the urgency of appropriate education for them. Procedures and criteria for identification vary but there is common agreement that intelligence testing is necessary. Selection on this basis commonly requires a minimum rating of 130 I.Q., although the range is from 120 to 148. Much has been accomplished and continued observation and research will undoubtedly culminate in a generally accepted method of selection.

Hildreth[1] mentions that all school personnel should be alert to the need for identification of and provision for the gifted. Pritchard[2] claims that many of the so-called enrichment exercises tend to degenerate into activities which help the teacher, such as running errands, acting as monitors, cleaning blackboards, tutoring slow learners, and assisting in the mechanics of class routine. She adds: "Not only are these activities useless in furthering knowledge and positive skills in the rapid learner, but they are a form of exploitation." Liebman[3] refers to the

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[1]Gertrude Hildreth, "School Planning for the Gifted," Educational Administration and Supervision, Volume 41, No. 1, January 1955, p. 1.

[2]Miriam C. Pritchard, "The Contributions of Leta S. Hollingworth to the Study of Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 53.

[3]Malvina Liebman, "Our Best Minds Were Running Errands," National Elementary Principal, Volume 43, January, 1954, pp. 35-36.

practice of allowing the ablest children to do errands such as going to the office or looking after a projector. She deplores the lack of motivation and direction for greater achievement by these pupils who finish the regular assignments sooner than the other members of the class. References are made to having the gifted children help the less able pupils. This does not seem to add anything to the enrichment of the programs for the gifted. The superior child would be better employed doing some purposeful work for his own improvement.

It appears that many of the activities described in various schools are not enrichment of the curriculum. Some of them are additional experiences in accordance with the concept of a flexible program. Writing editorials for school newspapers, visiting business executives for information for reports, or making studies of national or international policies may have little relation to actuality when the child becomes an adult member of the community. Repeatedly acting as chairmen of committees, or making individual excursions to obtain special information takes time that would be more economically used in following proposals for enrichment made by teachers and educators experienced in the field.

Visits to community resources such as planetariums, museums, and industrial sites may be utilized to great advantage if careful preplanning is done. The San Francisco[4] committee and Bentley[5] emphasize

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[4]Administrative Provisions for Superior Students in the San Francisco United School District; Bulletin No. 166, Fall, 1954. Bureau of Research, San Francisco, p. 6.

[5]John Edward Bentley, Superior Children. New York: W. W. Norton and Company, Inc., 1937, p. 130.

that field trips do not do much good for the average children but that they should arouse intellectual curiosity and opportunities for enrichment for the gifted ones. Radio programs, films, and other audio-visual aids demand the same concern for previous planning and follow-up work for the realization of definite aims. Osborn and Rohan are reported by Bentley[6] to have recommended enrichment around various forms of clubs, such as forestry clubs, mechanics' clubs, radio clubs, or newspaper clubs. Bentley states that while these activities may have a social value he doubts that they fully meet the needs of gifted children.

Many of the programs cannot be justified as constituting instructional enrichment. Often the bright children still have to work on their own and are merely left to do extra reading or work on special interest projects. Direction is commonly lacking and as a child does not always know his needs, his interests are constantly changing. The doctrine of child-interest is open to question. One might substitute a doctrine of purposeful activity. According to Beaumont,[7] interest should arise from purpose and educative meaning which involve guidance in a teaching process. The teacher must detect capacities and make provision for individual differences. Cottle[8] points out the need for caution until a method is

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[6]Ibid., p. 131.

[7]Florence Beaumont, Report and Recommendations on the Education of the Intellectually Gifted in New York City; Committee of the Division of Elementary Schools. Board of Education of the City of New York, 1952,p.194.

[8]William C. Cottle, "Interest and Personality Inventories," Personnel and Guidance Journal, Volume XXXIII, No. 3, November, 1954, p. 167.

found to differentiate interests produced by an emotional disturbance from a bona fide interest pattern. The counsellor, as well, must be able to tell the difference between a stable pattern of interest and one produced by a restricted environment.

Class projects are usually comprehensive activities contributing to the general learning of the class. The superior pupils may produce a small group project or an individual project which should however be related to the objectives of the class. Brown and Johnson[9] point out that the making of models, laboratory apparatus, collections of data and teaching aids are examples. They emphasize that planning is important and indicate that some teachers permit a superior student to participate in the conduct of a class and in the planning and evaluation of class activities. Teachers also allow able students to assist in the laboratories for short periods and present valuable demonstrations.

Many superior children do much reference reading.A read-and-write method[10] involves looking up material and writing a report on it or narrating it to the class. Such a procedure needs planning so that the student understands the material and sees its importance in relation to the class activity. Understanding is important if the pupil is to avoid merely copying material and reading it to the class. Brown[11]

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[9]Kenneth E. Brown and Philip Johnson, "Methods of Identifying and Instructing the Talented in Mathematics and Science," The Education Digest, Volume XIX, No. 2, October, 1953, pp. 41-43.

[10]Ibid., p. 42.

[11]Ibid., p. 42.

states that teachers report that group work within a class is most effective and the contribution of the gifted through reports is democratic. Gifted pupils often do present reports to the class. The occasional preparation of these is a valuable experience in discriminative reading, organizing of material, and oral presentation to the group. But much repetition of the experience does not add to the learning situation and may become a substitute for teacher instruction. Much time might be saved for the gifted children if, instead, they were to receive teaching from a well trained person instead of spending long periods of time seeking material. It is submitted that exploitation of gifted children's abilities develops when they are frequently called on to prepare reports, deliver them to classes, and present demonstrations on subjects with which they are already familiar.

Some schools concerned with giftedness have simply set a limited objective of raising school marks. Mastery of material is not a sufficient incentive for greater effort nor is continued experience in the same field unless the pupil is motivated by some purpose. Gifted children like school and the challenge of difficult subject matter. Often, however, the regular classroom fails to provide good content material and the discussions, so often commended, are little more than a vivacious exchange of ignorance. Direction is necessary and the teacher should remember that one cannot lead a group by merely listening to it. Passow[12] notes that because of limiting time and materials,

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[12] A. Harry Passow and others, "Planning for Talented Youth," Talented Youth Project; Publication I. Horace Mann-Lincoln Institute of School Experimentation, Teachers' College, Columbia, 1955, p. 37.

enrichment procedures in the regular classroom are "often makeshift and fail to stimulate the active intelligence and creative ability of the gifted student." Hollingworth[13] referred to the importance of enrichment material that is functional in life. This viewpoint is indicated in the curricula of many secondary schools. However while there are many courses on the curriculum some are not taught in all schools.[14] In small centers there is little choice of electives. Courses are fairly prescriptive with little adaptation to meet the needs or capacities of the abler students.

While numerous suggestions are offered about enrichment in various fields it appears that many of the programs simply add more of the same material. Grossnickle[15] reminds us that when children have cleared their plates, "do not fill them again with the same kind of food." Long[16] condemns any enrichment programs that merely add more of the same material. There is an indication that enrichment of some programs may encroach upon the work of a succeeding year and be indistinguishable from acceleration. Such lack of planning will presumably interfere with the proper organization of later work for the following grade. Undirected reference

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[13]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1929, p. 307.

[14]Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 114.

[15]Foster Grossnickle, "Arithmetic for Those Who Excel," Arithmetic Teacher, Volume III, March, 1956, p. 42.

[16]J. A. Long, "The Problem of the Gifted Child," Canadian Education, Volume VIII, No. 2, March, 1953, p. 21.

reading that permits the pupil to choose at will may mean that he works on new material belonging to the next grade instead of deepening the understandings of the work that belongs to the curriculum of his particular grade.

Evidence is almost unanimous that acceleration does not have lasting harmful effects if selection shows concern for physical and social maturity. Rideout[17] adds that emotional maturity is important. All writers indicate that acceleration should be moderate and some suggest that it should not be more than one year in each of the elementary and secondary school. However others argue that more acceleration is feasible. It is pointed out by many that acceleration results in a loss of extracurricular activities and that the student works hard on what is supposed to be the "narrow straight road of the curriculum" and drops other interests in music, hobbies, and social relationships. While many writers disapprove of acceleration it would appear from the study of various programs that a judicious use of both acceleration and enrichment has found favor. The arguments advanced for acceleration in the junior and senior high schools have much in their favor. College level courses for admission with advanced standing have also demonstrated their feasibility.

Enrichment with very limited acceleration appears to have more approval in the elementary school. Bloom[18] notes that "enrichment

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[17]Brock E. Rideout, "Summary of the Latest Findings on Acceleration, Segregation, and Enrichment," School Progress, Volume XXV, No. 2, April-May, 1956, p. 50.

[18]Samuel Bloom, "Early Identification of Potential Scientists," School Science and Mathematics, Volume 55, April, 1955, p. 294.

whether in special classes, special schools, or in the regular classroom is widely endorsed" although increasing enrolments are making the problem more difficult. Much of what has been done for the gifted involves some type of grouping which is not always feasible in areas of small enrolment. It is submitted by many that much enrichment may be effected in the regular classroom. Teachers who have taught in ungraded schools indicate that it is possible that groups of the same grade can be taught variations of material by different methods. The literature regarding enrichment through individualized teaching in regular classrooms indicates gratifying results under conditions of small enrolments, adequate instructional facilities, and desirable qualifications of teachers.[19] Numerous writers note that fine work has been done with rapid learners in heterogeneous classes and add that this has always been true of schools where dedicated and creative teachers have succeeded in evoking the best in bright and gifted pupils. With the increased school enrolment and the resulting increase in teacher load and the pupil-teacher ratio, it appears impractical to suppose that enrichment in the regular classroom will become the chief method of meeting the challenge of gifted children.[20] It does appear possible that homogeneous grouping can be approximated on the variables of chronological age, achievement scores, and intelligence quotients.

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[19] E. Brock Rideout, "The Gifted Child," Reprint from The Bulletin of the Ontario Secondary School Teachers' Federation, September, November, 1954, p. 17.

[20] Rideout, School Progress, op. cit., p. 50.

Special curricula, honor schools, and honor classes appear commendable and practicable in large schools. Grouping of the gifted in a special class or as the top group in a regular class in large schools appears justified on philosophical and educational grounds. Challenging material, greater enrichment, and moderate acceleration are easier to provide under such arrangements. Enrichment in special classes seems feasible and favored by the results of programs carried out in many centers, such as the Major Work Classes at Cleveland.

Wrightstone's[21] remarks pertaining to the value of the career high schools appear justified. He says that student selection is on the basis of interest which contributes to some homogeneity in the groupings. He adds that the school curriculum is well integrated and purposeful in developing marketable skills.

The general conclusions concerning special grouping are that it improves scholastic and personality development, meets educational needs adequately, and does not result in isolation from other activities of the school. Segregation, but not isolation, appears to be generally accepted for meeting the ultimate need of enrichment for the gifted child. The Education Policies Commission[22] says that enrichment is important and that special classes have little justification if they do not provide it. Schwartz, after a study of homogeneous grouping, is quoted

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[21]J. Wayne Wrightstone, "The Career High School," Educational Leadership, Volume XIII, No. 4, January, 1956, p. 240.

[22]Educational Policies Commission, Education of the Gifted. National Education Association, Washington, 1950, p. 56.

as saying that:

> The real purpose of the special class seems to lie in the assignment of tasks which challenge the child's interests and capacity, the enrichment of the curriculum to include a wide variety of experiences which are not possible in the regular class, the opportunity to think and discuss with other children of equal ability the problems of life within their grasp, the development of initiative and independence of thought, and last, but not least, the realization of responsibility to the community, looking toward the use of their powers for the benefit of mankind.[23]

To be effective, learning situations must have goals within the understanding of the pupils. Children should have a desire to succeed. Personal growth rather than achieving superiority over others is a current emphasis in education. Realization of this growth gives the student encouragement and confidence in his educational development.

A review of the existing programs for the gifted indicates that the size of the school, the number of gifted students, the nature of the staff, the instructional resources, and the administrative organization all influence the kind of program that can be provided. Concern is evident for early identification of the superior students. The objectives of the program are very commendable. Much enrichment has been achieved either within the scope of the curricula or through additional activities relative to the pupil's interests, capacities, and understanding. Caution is expressed that all programs should be purposefully planned and that the pupils should receive direction in their projects

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[23]Paul Witty, "Nature and Extent of Educational Provisions for the Gifted Pupil," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 189.

and in their reading. There appears to have been a discreet use of acceleration. The services of counsellors and community resources have been utilized to great advantage. Participation by able students in various public activities has encouraged the development of special interests. Superior achievement in Talent Searches or in college preparatory courses bears witness to the efficacy of challenging programs that have stimulated pupils to high attainment.

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PART IV

NEEDS AND RECOMMENDATIONS

CHAPTER I

CURRICULUM

Those associated with programs for the gifted insist that superior children must acquire keener insight and more effective social responsibility than is attained by average learners. A state-wide survey[1] of elementary school principals, teachers, supervisors, parents of rapid learners, and rapid learners themselves showed unanimous agreement that the following major areas and specific objectives had particular importance for superior children: accepting responsibility for applying citizenship knowledge to group undertakings in civic affairs and analyzing propaganda in public affairs; checking information with known facts as a demonstration of knowledge of basic skills; understanding the possibilities of improving environment through scientific and industrial development; and effective thinking and world understanding with an appreciation that education is a powerful force in alleviating misunderstandings, tensions, and persecutions arising out of variations in peoples and their cultures. Dr. Benjamin Willis,[2] superintendent of

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[1] Report of the Guidance and Counselling Section: Division of Elementary Education. Progress Report: Special Work Program for Rapid Learners. Los Angeles City School Districts, 1954-55, pp. 3-4.

[2] Benjamin Willis, "Modern Educational Programs," School Progress, Volume XXV, No. 2, April-May, p. 11.

public schools in Chicago, says that the school has an obligation to give young people practice in democracy and preparation for a lifelong process of personal development. He adds that education must provide for the transmission of our cultural heritage. Bentley[3] maintains that the gifted child needs to be educated specifically for group progress and human advancement. Social realism calls for human fitness for effective leadership and demands educational opportunity for the development of abstract thinking, social intelligence, oral expression, culture, manners, and conduct. Stedman[4] and Bentley say that the curriculum must be adjusted so that the superior student will be challenged at his highest level of achievement. Witty[5] adds that the gifted child needs a curriculum adapted to his rapid rate of learning and that it needs to be of diversified experience to suit his many-sided interests and to promote well-rounded development and enable him to attain social maturity. He adds further that "Almost every study shows that gifted children are offered little that is mentally or educationally provocative in the subject matter of their grades."[6] and again he says that "...the gifted child is offered little that is challenging in the typical elementary school and the neglect is even

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[3]John Edward Bentley, Superior Children. New York: W. W. Norton and Company, Inc., 1937, pp. 128-130.

[4]Lulu M. Stedman, Education of Gifted Children. Edited by Lewis M. Terman; Measurement and Adjustment Series. Chicago: World Book Company, 1924, p. 187.

[5]Paul Witty, "What is Special about Special Education," Reprint from Edceptional Children, Volume 18, December, 1952; Volume 19, No. 3-8, January-May, 1953; Volume 20, No. 1-2, October-November, 1953, pp. 28-30.

[6]Walter Barbe, "Are Gifted Children Being Adequately Provided For," Educational Administration and Supervision, Volume 40, No. 7, November, 1954, p. 407.

greater in the secondary school."[7] Lubera says that gifted children often find their classroom work unbearably dull. They become restless and resentful. Ruth Strang observes that:[8]

> ...maladjustment in gifted children may grow out of a curriculum that does not challenge their ability or provide education in interpersonal relations, self-understanding, and family living, in addition to the usual academic subjects.

Irving Lorge asserts also that education of the gifted should emphasize experiences that effectively challenge their ability and provide opportunity for demonstrating originality and initiative. There should be a range of activities for the acquisition and development of interests which would give a basis for socially significant values.[9] Havighurst[10] supports this view in urging that a good program makes use of a variety of community resources. Any program must be rich, stimulating, and dramatic and must include fundamental skills, and necessary attitudes towards habits of thoroughness and study, and a wide range of experiences with people, symbols, and ideas.[11] It is generally accepted that children learn by experience and it is agreed that good experiences must be given

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[7] Ibid., p. 407.

[8] Ruth Strang, "Mental Hygiene of Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p.153.

[9] Irving Lorge, "Social Gains in the Special Education of the Gifted," School and Society, Volume 79, No. 2024, January 9,1954, p. 5.

[10] Robert J. Havighurst, Eugene Stivers, and Robert DeHaan, "A Survey of Gifted Children," Supplementary Educational Monographs, No.83. Chicago: University of Chicago Press, November, 1955, p. 18.

[11] Lorge, op. cit., p. 6.

as the natural right of intellectual superiority.

> Among the objectives of the curriculum for the intellectually superior must be a recognition that superior achievement is a fortunate resultant of the interaction of heredity in terms of endowment, maturation in terms of development, and environment in terms of opportunity.[12]

Planning is important as children do not learn by chance. It must not be forgotten in planning for gifted children that the range of individual differences is great and that even in a special class differences still exist. Gross[13] suggests that special classes may limit modernization of the curriculum:

> Once such groups are institutionalized in our educational organization and come to serve a purpose, even if insufficiently, they will prolong the efforts to attain basic educational or core arrangements and vital common learnings and other educational aims may be lost.

He adds that this situation may apply more particularly at the secondary school level. He points out that because able pupils can easily do the traditional academic work faster and better there is no assurance that it is the right curriculum for them and that some of the courses and methods may be least helpful to the creative needs of the brilliant children. He urges that an enrichment program geared to the abilities of the gifted includes emphasis upon the basic general education essential for other students as well. Enrichment demands flexibility for deepening individual experiences, extending resources, and establishing

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[12]Ibid., p. 6.

[13]Richard E. Gross, "The Challenge of Social Education for the Gifted," Social Studies, Volume 45, October, 1954, p. 202.

conditions which motivate high performance. Adams and Brown[14] propose a well-balanced program which provides for a rich associative background. Creative resources must be well developed. There should be a positive plan of character training based on reasoned as well as on emotionalized standards. A socialized viewpoint should be manifested by extracurricular experiences and play activities that have carry-over interests into the future. Cutts and Moseley[15] point out that the past experiences of the pupils and the special interests of the individuals or groups are some of the factors that influence the attitude toward enrichment and the means employed to provide it.

> If you regularly teach by units of work or in an activity program, enrichment is easily arranged because these methods entail planning by pupils, individual research, creative projects, and evaluation by pupils.[16]

Nelda Davis[17] says that the program for the gifted should provide for creative music and art. She attaches importance to creative writing and dramatization and indicates that the studies of biographies promote social growth through development of respect for others and intellectual devotion to a cause. She indicates, in agreement with Wilson, that there should be many physical resources such as bulletin boards, magazines,

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[14] Fay Adams and Walker Brown, Teaching the Bright Pupil. New York: Henry Holt and Company, 1930, p. 63.

[15] Norma E. Cutts and Nicholas Moseley, Teaching the Bright and Gifted. Englewood Cliffs: Prentice-Hall, Inc.,1957, p. 37.

[16] Ibid., p. 38.

[17] Nelda Davis, " Creative Activities for Gifted Pupils," School Review, Volume 63, February, 1955, pp. 85-90.

periodicals, space for displays, and collections. Throughout the program there should be a willingness to experiment with new ideas. Witty[18] joins in commending the use of community resources, clubs, workshops, and extra-curricular activities as enrichment of programs for the gifted. He urges evaluation and interpretation of the program to parents and to teachers. He also refers to the value of differentiated assignments and special course offerings in the high school. The Fourth Edison Foundation Institute Report stated that "Education should re-examine with the help of engineers and scientists course offerings in science and mathematics."[19] The Report went on to state that there should be courses in the history of science and technology to insure that the industrial economy may be better understood. Many others maintain that there should be special interest subjects such as science, mathematics, and college-level courses on the school programs for the gifted.

Bentley[20] asserts that there should be courses in group guidance and in the development of those intangible abilities which form the power to achieve successfully, as well as provision for the most rapid development of knowledge and skills. Witty points out the importance of guidance in planning programs. Gross[21] says that a program for the gifted "should

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[18]Paul Witty, "Today's Schools Can Do Much More for the Gifted Child," Reprint from The Nation's Schools, February, 1956, p. 8.

[19]Report of the Fourth Edison Foundation Institute, West Orange, New Jersey, November, 1952, p. 3.

[20]Bentley, op. cit., pp. 183-189.

[21]Gross, op. cit., p. 204.

be based on the guidance viewpoint of discovering every pupil of exceptional ability as well as the exceptional abilities of every pupil and then planning for all." Pritchard[22] states that the educational program for the gifted involves such principles as making full use of human resources, discovery of the gifted and determination of their educational needs and interests, insistence upon high standards of accomplishment, and provision of opportunities for creative work and independent thinking with "teachers and administrators who will be inventive, creative and original and who will be willing to break with tradition in meeting the unique learning needs of their gifted students.[23]

Writers agree that the curriculum should provide challenging material adapted to the learning rate and diversified interests of the gifted. Opportunities should exist for experience in group undertakings for the development of social responsibility and practice in the skills of a democracy. While effective thinking and good scholarship are significant objectives of the curriculum it must also be flexible enough to provide socialized enrichment and opportunities for expressing initiative and creative interests. Community resources and extracurricular activities should be utilized. Some educators emphasize biographies and histories of science for the development of character and social attitudes.

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[22]Miriam C. Pritchard, "Total School Planning for the Gifted Child," reprint from Exceptional Children, Volume 18, No. 4, 5, 6, January, pp. 107-110,128; February, pp. 143-147; March, pp. 174-180.

[23]Ibid., p. 16.

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CHAPTER II

TEACHING PROCEDURES

The implementation of a well planned curriculum depends upon the quality of teaching procedures. The Educational Policies Commission states that qualified teachers are the primary and essential factor in good education.[1] Harold Taylor asserts that:

> Anyone can take advantage of an opportunity if he has been brought up to recognize such things and has been prepared by experts to be ready when they (opportunities) come.[2]

A major function of teachers is to arouse the interest of the gifted children and develop in them attitudes of effort and self-discipline. It is stated that:

> Effort seems to be an acquired rather than an innate characteristic. It is essential, therefore, that every means be utilized to develop this attitude of self-discipline. Only in this way can the child develop habits of work which will enable him to make the utmost use of his capacity and ability.[3]

The Report on Manpower and Education also states that:

> As a practical matter the school which gives greater emphasis to the education of the gifted may find it useful to consider four kinds of endeavor. Its gifted learners, whose best talents are the nation's chief resource, must (a) be identified; (b) be retained in school for a sufficient time; (c) have a suitable kind of educational experience; and (d) receive wise guidance.[4]

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[1] Manpower and Education. Report of the Education Policies Commission National Education Association, Washington, D.C., 1956, p. 109.

[2] Harold Taylor, "Education: For What and For Whom," School and Society, Volume 83, No. 39, February 4, 1956.

[3] Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 79.

[4] Manpower and Education, op. cit., p. 99.

Good teaching procedures are those which enable the child to work independently as well as with others, to experiment with ideas and materials, to explore more widely in order to achieve greater mastery of content and skills and to experience numerous opportunities for creative expression. Brown[5] indicates that the teacher must show creativeness in order to develop it in a child. He points out that many activities that look "creative" are not necessarily significant.

> The creativity which we seek to foster is that sufficiency of self and intellect which sees matters clearly and wholly, which functions to produce original insights, to find relations, and to see problems.[6]

Adams and Brown[7] refer to the need of creative experience and indicate the importance of imagination in teaching. Reference is also made to a socialized procedure in which the teacher is a participant in purposeful projects. It is suggested that children's groups should not be imitations of the formalism of traditional teacher control. Planning activities is beneficial. It has been suggested[8] that much planning is done for the gifted rather than with them and that if they are as original and creative as often claimed, then they are a group with whom planning should be done. It would seem to be important for a teacher of the gifted "to clarify his

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[5]James Brown, "First a Person: Then a Teacher," Educational Leadership, Volume XIII, February, 1956, p. 299.

[6]Ibid., p. 300.

[7]Fay Adams and Walker Brown, Teaching the Bright Pupil. New York: Henry Holt and Company, 1930.

[8]Wallace A. Verburg, "Editorial: Reflections on Educating the Gifted," Educational Leadership, Volume XIII, No. 4, January, 1956,p. 207.

function as a servant of the gifted rather than primarily as a program director and manipulator of genius in the making."[9]

Procedures and objectives become modified as teachers work with superior pupils. Sumption[10] mentions that the objectives in the Cleveland classes were the same as for the regular classes but that there was a different approach and a selective emphasis on these objectives in the light of needs, capacities, and possibilities of the gifted. Freeman says that identical methods of instruction are not of identical value for everyone and he states that, "The very superior group of pupils and students will profit more from methods adapted to them than from procedures employed with the average."[11] Bentley[12] also notes that individual differences in the capacities and learning habits of children demand different teaching procedures. The gifted do not need as many illustrations nor as much drill. Hollingworth[13] and Sumption[14] stated that the drill period may be reduced and needless repetition eliminated. Stedman[15]

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[9] Ibid., p. 207.

[10] Merle E. Sumption, Three Hundred Gifted Children. New York: World Book Company, 1941, p. 42.

[11] Frank S. Freeman, Individual Differences. New York: Henry Holt and Company, 1934, p. 143.

[12] John Edward Bentley, Superior Children. New York: W. W. Norton and Company, Inc., 1937, p. 129.

[13] Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1926, p. 307.

[14] Sumption, op. cit., p. 27.

[15] Lulu M. Stedman, Education of Gifted Children. Edited by Lewis M. Terman; Measurement and Adjustment Series. Chicago: World Book Company, 1924, p. 187.

also stated that the time for explanations and drill might be shortened as the gifted should need only two-thirds the time that average pupils required. She added that teaching procedures should help the children to study more effectively and Bentley[16] and others indicate that logical organization and abstract thinking are features of the study habits of mentally superior students. Adams and Brown[17] also state, as a fundamental principle, that teaching methods vary for mixed groups and that the gifted should get supervised study, lengthened periods, and special assignments. They point out that even the homogeneously grouped pupils show variations in verbal, social, esthetic, and mechanical abilities and consequently differentiated assignments must be given them. The Edison Institute in its fourth report[18] recommended that education should provide "realistic teaching assignments and work loads for science and mathematics teachers which will in turn provide more laboratory type instruction." Krueger[19] mentions that in some schools materials of study are organized into "contracts" which pupils may complete at their own rate. Group discussion is arranged at periodic intervals. The plan involves much preparation of work, such as typing, mimeographing, and recording as well as the time needed for individual help and correction of each

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[16]Bentley, op. cit., p. 130.

[17]Adams and Brown, op. cit., p. 71.

[18]Report of the Fourth Edison Foundation Institute, West Orange, New Jersey, November, 1952, p. 5.

[19]Louise Krueger and others, "Administrative Problems in Educating Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 264.

contract. Students may be challenged and motivated if they perceive purpose in their work.

Another approach in teaching procedure involves selecting centers of interest, called units of work, which become the focus for the school program.[20] A large number of activities centered around a theme engage the attention of the students in cooperative work throughout the year. Field trips, research, library study, experimentation, painting, and drawing may all be included in the unit. This approach requires skilful planning by the teacher in order to provide common experiences and challenge creative and original endeavor by the individuals and the group.

Barbe,[21] Strang,[22] and Witty agree that the gifted need reading instruction and that there is a danger of overlooking this need because these children read as well as the average. Barbe adds that teachers should capitalize on the interest that children have in school and provide reading material of a high interest level and make sure that the child learns to read and does not memorize stories that he hears. He points out that the large words usually give the thought of the story and the child tends to pay little attention to the small words. Krueger[23]

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[20] Ibid., p. 265.

[21] Walter B. Barbe, "Problems in Reading Encountered by Gifted Children," Elementary English, Volume 33, No. 5, May, 1956, p. 273.

[22] Helen M. Robinson, "Educating the Gifted; Editorial Comment," Elementary School Journal, Volume 53, No. 9, May, 1953, p. 488. Reported from Ruth Strang, "Gifted Children Need Help in Reading, Too," Reading Teacher, May, 1953.

[23] Krueger, op. cit., p. 263.

notes that the procedure of assigning much reading may result in the failure of the gifted child to participate in many activities necessary for wholesome development. All instructional procedures involve meaningful assignments and discussions, cooperative work, challenge, and commendation for maximum endeavor. Integration is essential to effective growth of the individual. Good adjustment, confidence, and security must be attained. The child must not be torn by doubts and fears expressive of a disintegrated personality. Security, success, and prestige are essentials to the mental health of children. Inadequate teaching procedures, faulty material, and purposeless activity may defeat the objectives of a learning situation. The learner is a goal-seeking organism and learns most effectively when proceeding towards goals recognized and accepted as his own. Motivation becomes important and "can flower from a rich and flexible guidance program which helps superior children understand their own abilities in terms of their meaning for personal development."[24] Guidance and motivation are interrelated. The Educational Policies Commission makes the statement:

> Guidance exists in the personal relations of teacher and taught. In the instructional program all that increases the student's knowledge of himself and his opportunities is related to guidance.[25]

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[24]Harry Passow, "Are We Short-Changing the Gifted." Reprint from The School Executive, December, 1955, pp. 54-57.

[25]Manpower and Education, op. cit., p. 85.

And again it is said:

> Guidance is not the work of a few specialists. It is rather a service from the entire school staff, which requires some people with special knowledge and skills, but enlists the cooperation of all.[26]

Most teachers inevitably have some influence on the attitudes and vocational choices of children. Many of the subjects, such as social studies and science, create understandings of the pupils' relations to the economic environment. Motivation is an important accompaniment of any teaching procedure. The Toronto study[27] indicated that "many students of superior ability lacked the emotional stamina to put enough effort into their studies" and the report recommended that intensive counselling was important for underachievers. Dr. Barrett,[28] a director of guidance in Toronto, says that: "... one is appalled to contemplate the wastage of human resources which is involved when a gifted student drops out of school or wastes his time while he is there." The director of education in Hamilton says that over-teaching and under-challenging are two of the greatest handicaps of the gifted child.[29] All teaching procedures are matters for evaluation and teachers should appreciate the importance of

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[26] Ibid., p. 88.

[27] Report of Experimental Work in the Secondary Schools of Toronto. Submitted by J.R.H. Morgan, Superintendent of Secondary Schools, Toronto, 1956, p. 4.

[28] H. O. Barrett, "Under Achievement: A Pressing Problem," The School Guidance Worker, Volume 12, No. 3, December, 1956, p. 11.

[29] Letter from R. A. Riddell, Director of Education, Hamilton, February 6, 1956.

this. Wilson[30] states that knowledge should be related to effective living, as demonstrated in personal desires and happiness, socialized attitudes, and character formation. He adds:

> Courageous willingness of teachers to discover, accept, and be guided by the strongly motivating interests of gifted children seems to be a first and basic concern if genuine enrichment of the pupils' education is to be realized.[31]

Keeping children in school and arousing their best efforts depends on motivation and an understanding by the youth of the need for his trained services, and upon a continuing sense of challenge that emanates from an appreciation that there are worthy tasks to be done.

The size of classes also affects teaching procedures. The New York Committee[32] recommended that classes for the gifted should be organized according to age-grade level with a maximum register of twenty-five pupils. Goddard[33] stated that the enrolment in the Major Work Classes in Cleveland was limited to twenty-five. In many of the programs carried on for gifted pupils frequent mention is made of limited enrolments and in some of the special interest classes the maximum number is ten. The Baltimore Committee stated that the

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[30]Frank T. Wilson and Cyril Woolcock, "A Note on Enrichment of Gifted Pupils," Educational Administration and Supervision, Volume 40, No. 8, December, 1954, p. 487.

[31]Ibid., p. 487.

[32]Florence Beaumont, Report and Recommendations on the Education of the Intellectually Gifted in New York City; Committee of the Division of Elementary Schools. Board of Education of the City of New York, 1952, p.18.

[33]Henry H. Goddard, School Training of Gifted Children. New York: World Book Company, 1928, p. 87.

principal deterrent to providing the best possible education for the superior child is the large class and added that:

> While there is no unanimity of opinion with regard to the ideal size of the class with which the teacher can properly deal, and, in the elementary area at least, give proper attention to the various groups of children, including the superior ones, it is not too far afield to say that the number would not be more than thirty.[34]

Effective teaching involves a well balanced program which includes cooperative planning and socialized procedures permitting students to envisage and pursue clear goals. The teacher in a gifted group helps with the planning and aids in choosing the means of attaining the objectives. She must demonstrate originality and resourcefulness in planning experiences in creative activity for the pupils. Many educators emphasize that gifted children need different teaching methods characterized by less drill and more assignments of considerable duration such as contracts or units of work. They insist that there must be careful selection of centers of interest and that thoughtful preparation for integration is important if the child is to grow in understanding in an atmosphere of security. Guidance and motivation are always important in challenging the best efforts of able students.

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[34]Elizabeth Morrissy, Walter Sondheim, Jr., J. Trueman Thompson, "The Superior Child in the Baltimore Public Schools," Baltimore Bulletin of Education, Volume XXXI, No. 5, June, 1954, p. 10.

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CHAPTER III

QUALIFICATIONS OF TEACHERS

Gifted students need superior teachers. While this qualification is administratively difficult it is generally agreed that wise and skilful direction is required for the development of superior children. Long says that:

> Without the teacher the most important talents, tastes and capacities of children will remain dormant; without him there can be no other professions for every professional man depends on the basic instruction given by the teacher; without the teacher the sense of values and the art of correct thinking so necessary for an understanding and support for democratic institutions cannot be developed; without the teacher there can be neither a free man or a free society.[1]

In an age of changing values some people ask who is able to teach a genius in terms of future needs. Many able men in science may have lacked help from the schools and the observation is sometimes made that the gifted persevere because of internal satisfaction rather than because of external incentives. Peterson[2] remarks that "there are countless other children who are also gifted but whose dormant capacities await some contact with person or thing to bring them to bloom." Verburg[3] points out that stenographers, clerks, and librarians should do much of the routine work of the school and leave teachers free to teach so that "they might then

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[1]Marcus Long, "The Crisis in Education," The Canadian Teacher's Guide, Volume VII, No. 9, Spring, 1957, p. 7.

[2]Frederick Peterson, Creative Education. New York: G. P. Putman's Sons,1936, p. 95.

[3]Wallace A. Verburg, "Editorial," Educational Leadership, Volume XIII, No. 4, January, 1956, p. 207.

personalize educational experiences to such a degree that the gifted could blossom." Goddard and Bentley[4] emphasize the importance of good personality in a teacher. Bloom[5] remarks that "the teacher makes the difference." According to Lorge and Blau[6] the courses a child takes are of secondary importance to the teacher with whom he learns. Ryan[7] and Hollingworth[8] agree in saying the teacher should have a good sense of humor. A pleasant disposition and a charming manner are very conducive to a happy learning situation. Wilson[9] adds that humor in addition to good will, tolerance, and fairness are characteristics even more necessary for successful leadership of gifted pupils than for any other children. Many writers stress patience and a love of truth as essential characteristics. Witty[10] notes that in the twentieth century correlation studies failed to show a close relationship between successful teaching and separate

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[4]John Edward Bentley, Superior Children. New York: W. W. Norton and Company, Inc., 1937, p. 180.

[5]Samuel Bloom, "Early Identification of Potential Scientists," School Science and Mathematics, Volume 55, April, 1955, p. 287.

[6]Irving Lorge and Raphael D. Blau, "Education of a Genius," School and Society, Volume 54, No. 1408, December 20, 1941, p. 574.

[7]W. Carson Ryan, Ruth Strang, and Paul Witty, "The Teacher of Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 108.

[8]Leta S. Hollingworth, Gifted Children: Their Nature and Nurture. New York: The Macmillan Company, 1926, p. 307.

[9]Frank T. Wilson, "Suggestions for Preparation of Teachers of Gifted Children," Elementary School Journal, Volume 52, No. 3, November, 1951, p. 160.

[10]Ryan, op. cit., p. 107.

factors such as intelligence, achievement in special subjects, and amount of formal education. He indicates that the subjective evaluations by the pupils themselves often give more insight into the characteristics of effective teachers. A sampling of such judgments is indicated in 14,000 letters entered in the first Quiz Kids radio program contest on "The Teacher Who Helped Me Most." The analysis of the letters showed the following traits mentioned, in order of frequency: cooperative attitude, kindliness and consideration for the individual, patience, wide interests, pleasing personal appearance and manner, fairness and impartiality, sense of humor, good disposition and consistent behavior, interest in pupils' problems, flexibility, use of recognition and praise, and unusual proficiency in teaching a particular subject. Goddard[11] and Hollingworth assert that the teacher should be well educated with a broad-minded view of educational objectives and an inspiring attitude to encourage and stimulate learning. This implies a responsibility for knowing a subject and keeping the knowledge up to date. The teacher should understand children and enjoy teaching them. Intellectual modesty and a broad background of culture should enable the teacher to exercise self-control in her own instruction so that pupils will be given the opportunity for investigation and original expression. Pritchard[12] suggests that a

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[11]Henry H. Goddard, School Training of Gifted Children. New York: World Book Company, 1928, p. 57.

[12]Miriam C. Pritchard, "Total Planning for the Gifted Child," Reprint from Exceptional Children, Volume 18, No. 4, 5, 6, 1850, January, pp. 107-110, 128: February, pp. 143-147; March, pp. 174-180.

teacher should possess superior intelligence, creativeness, and inventiveness, a high degree of originality, a wide background of varied experience, a broad fund of information, and a psychologically mature and emotionally stable personality. Bloom[13] insists that a dynamic teacher is best able to identify, encourage, and guide the development of promising science students. Gross[14] adds his emphasis for the need of able and ingenious teachers and Bentley[15] says the teacher of gifted children must be dynamic and socially effective so that he may be a competent guide and friend of the student. Both he and Lubera[16] state that teachers should furnish a stimulus for learning. Bentley says that gifted children need a highly trained teacher whose intelligence, scholarship, energy, and enthusiasm will encourage pupils to seek out and solve problems in a self-reliant manner. Dr. Marcus Long says that:

> The good teacher must have intellectual competence and interests; he ought to have adequate professional training. He must have a desirable personality. The teacher may influence as much by his personality as by his intellectual brilliance or skill in teaching. The good teacher, in teaching, imparts not only his subject matter but a very large part of himself. That is why I would urge each one of you to bring your happier personality into a classroom, a personality expressing itself in patience, sympathy and understanding.[17]

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[13]Bloom, op. cit., pp. 287-295.

[14]Richard E. Gross, "The Challenge of Social Education for the Gifted," Social Studies, Volume 45, October, 1954, p. 204.

[15]Bentley, op. cit., p. 180.

[16]Thaddeus J. Lubera, "Address to the Thirty-seventh Annual Convention of the National Association of Secondary School Principals at Los Angeles, February, 1953; Bulletin of the National Association of Secondary School Principals, Volume 37, No. 194, April, 1953, p. 30.

[17]Long, op. cit., p. 7.

Wilson,[18] after making a survey of training schools, states that agreement was unanimous that teachers of gifted children should themselves be gifted individuals. Ryan, Strang, and Witty state:

> In order to keep pace with their active minds and wide interests, the teacher of gifted children needs to be more nimble mentally and somewhat more widely read than the teacher of average children. Certainly he needs to appreciate fully their ability to take initiative and responsibility.[19]

and again they say:

> The education of gifted children requires gifted teachers who have the ability to recognize giftedness, to create an atmosphere and environment favorable to its development, to provide conditions that give it a chance to emerge and blossom.[20]

The teacher of the gifted must be alert in providing them with a balanced program which includes many experiences in the arts and sciences, and which also presents opportunities for both group and individual recreational activities. Pritchard[21] asserts that a good teacher of any type may be a good teacher of the gifted. But her criteria of a good teacher are very high. Steinson states his views clearly:

> To assume that because a teacher is highly successful with a group of average pupils, he will automatically without further training or experience become an excellent teacher of very bright pupils, is wholly illogical.[22]

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[18] Wilson, op. cit., p. 160.

[19] Ryan, op. cit., p. 112.

[20] Ibid., p. 113.

[21] Pritchard, op. cit., p. 12.

[22] S. W. Steinson, "They Are The Forgotten," Education: A Collection of Essays on Canadian Education, Volume I. Toronto: W. H. Gage and Company, Ltd., 1956., p. 71.

The teacher of gifted children must have sensitivity concerning their nature and needs. It is sometimes maintained that the teacher need not be as bright as her brightest pupil, but she must be sympathetic and skilful in guiding the selection of studies. Teachers sometimes have insufficient skill in refining and clarifying problems to a point where they can be resolved. Wilson and Woolcock[23] suggest that some teachers are insecure with gifted children and state that they are not adequately informed nor skilled in handling strong motivation. Hollingworth[24] believes that gifted pupils often have more information and deeper insights into a topic than the teacher may have. Some of these children ask questions off the subject. However, according to Terman,[25] they ask more intelligent ones and teachers who take these innumerable questions seriously and answer them as fully and as truthfully as their own information will permit or as the pupils' intelligence will justify are satisfying the most important part of the educational needs of the gifted. Superior children in a class often have much to say and great skill is needed to lead such a group in discussion and to give them understandings of effective procedures such as clear objectives, evaluations of suggestions made by themselves and by others, and incorporation of these ideas

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[23]Frank T. Wilson and Cyril Woolcock, "A Note on Enrichment of Gifted Pupils," Educational Administration and Supervision. Volume 40, No. 8, December, 1954, p. 483.

[24]Miriam C. Pritchard, "The Contributions of Leta S. Hollingworth to the Study of Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 63.

[25]Lewis M. Terman and Melita Oden, "The Stanford Studies of the Gifted," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 38.

into their individual thinking.[26] Passow[27] says that the teacher must be able to accept nonconformity of attitudes and behavior and allow the freest possible exchange of ideas and the widest variety of solutions to problems. Discussion is important. A teacher cannot lead a group of gifted children by running behind them. He must show flexibility and be able to instil confidence and inspire children to higher achievement. Teachers with an urgent desire to dominate students should not be selected as their guidance invariably becomes pressure. Teachers must have positive attitudes toward gifted children and as Hollingworth[28] says "be tolerant of being beaten occasionally in intellectual performances." Both she[29] and Passow[30] emphasize that teachers must be free of prejudices or jealousy concerning gifted children.

Nelda Davis[31] comments that teachers must take time to plan creative activities to meet the interests of individuals and to develop

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[26] Ryan, op. cit., p. 115.

[27] A. Harry Passow and others, "Planning for Talented Youth," Talented Youth Project; Publication 1. Horace Mann-Lincoln Institute of School Experimentation, Teachers' College, Columbia, 1955, p. 57.

[28] Hollingworth, op. cit., p. 307.

[29] Ibid., p. 307.

[30] Passow, op. cit., p. 57.

[31] Nelda Davis, "Creative Activities for Gifted Pupils," School Review, Volume 63, February, 1955, p. 85-90.

the social maturity of groups. The Hope Report[32] recommends that teachers must have time and opportunity to study and evaluate pupils. It is further recommended that teachers should have the same group of pupils for three years. Sidney Smith[33] adds his opinion that teachers of gifted children should have time and opportunity to read and think intensively, and to discuss with the able students their problems and ideas. He also states that teaching assignments should be light enough to permit the teachers of the gifted pupils to discuss particular problems with the school psychologists.

The teacher must be a well adjusted person with an intelligent concern over the social development, play activities, and adjustment of her pupils. Teachers have the best opportunity to observe children under conditions which disclose maladjustment.[34] In her key position she can maintain a friendly personal relationship and study the characteristics of her superior students. The guidance point of view should pervade all aspects of the teacher's work with gifted children.[35] Experience has shown that individual teachers have become more competent to stimulate superior pupils as their own background is enriched by extensive reading,

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[32] Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 80.

[33] Sidney Smith, "Brains Unlimited," Canadian Education, Volume IX, No. 3, June, 1954, p. 9.

[34] Norma E. Cutts and Nicholas Moseley, Teaching the Bright and Gifted. Englewood Cliffs: Prentice-Hall, Inc., 1957, p. 156.

[35] Education for Gifted Children and Youth; A Guide for Planning Programs, Bulletin No. 77, State Department of Education, Hartford, Connecticut, June, 1956, p. 32.

travel, study of the gifted, and participation in service and community organizations.[36] The enjoyment arising from these activities provides an acquaintanceship with areas of human experience that enrich the personality.

Teachers make valuable contacts outside a class. Many children wish to have private conversations removed from the atmosphere of a "planned guidance interview." They like to talk about vocations and interests outside of school.[37] Some of them have great aims but are conscious of their socio-economic limitations and they appreciate the advice that is given on the basis of greater experience.[38] They need encouragement and knowledge about financial assistance and part-time occupations. Biographies of many eminent men relate the influence of teachers who understood their potentiality and encouraged them in their fields of interest and provided opportunities for the development of their abilities. Many teachers release the creative energy of pupils in their classes by assigning them more challenging work, giving them a chance to work on class or individual projects, and placing them among informal groups where they might learn techniques of working with others in a common purpose.[39]

Some children have had little opportunity to develop a healthy philosophy of life.[40] They admire teachers with healthy mental and social

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[36] Ibid., p. 30.

[37] Ryan, op. cit., p. 123.

[38] Ruth Strang, "Mental Hygiene of Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p.152.

[39] Ryan, op. cit., p. 121.

[40] Strang, op. cit., p. 151.

attitudes who talk in terms of satisfaction and successful achievement. Beaumont and Macomber[41] note that real learning comes from experience in the desired form of behavior rather than in recitations about it. Learning is emotional in nature as well as intellectual and physical. The teacher is an integral part of the pupil's psychological environment. Her cheerful speech and action affects others and can make the environment satisfactory, democratic, and happy. Children in special classes can learn democratic values and respect for individuals as teachers support by their own behavior the values they seek to develop in young people. Human spirit has overflowed in creative activity in fifth century Athens and Elizabethan England. Smith[42] urges that teachers might contribute some of the zest for living so that there might "be a contagious enthusiasm for living life in a high key."Dr. Long emphasizes that teachers have an important role in developing democratic values and changing indifferent pupils into zealous students. For, as he says, "each child is a part of the future and what is done to the child today will be reflected in the society of tomorrow."[43] There have always been great teachers who understood the importance of their role. Their common sense of mission and love of teaching have contributed much to the progress of humanity.

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[41]Henry Beaumont and Freeman Glenn Macomber, Psychological Factors in Education. New York: McGraw-Hill Book Company, 1949, p. 297.

[42]Smith, op. cit., p. 9.

[43]Marcus Long, op. cit., p. 3.

The teacher is one of the most essential factors in the child's education. She must be sensitive to the needs of the gifted so that, with tolerant understanding and skill, she may assist in the planning and open the door of learning for those who may soon surpass her in their particular areas of knowledge. She must be intellectually able in order that she may clarify issues and refine the thinking of her students. Creative originality, wide experience, and high educational attainment should be reflected in a positive attitude for stimulating effort and maintaining balance by the pupils. The teacher's sense of humor, equanimity, and assurance of achievement should give dynamic motivation for the children's zest for learning.

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CHAPTER IV

PROFESSIONAL AND ACADEMIC EDUCATION OF TEACHERS

Frequent mention is made of the need of trained teachers for gifted children. Sumption[1] reports that a follow-up study of Cleveland's gifted children revealed that twenty-three per cent of them said there was more need of specially trained teachers to do more effective teaching. The New York[2] committee recommended special training for all teachers of gifted pupils as a part of the teacher training program in the college. Teacher-education institutions have the responsibility for selecting and training applicants who have the personality and attitude for working with gifted children and with their parents. Self-understanding is the first step in understanding children. Prospective teachers must not only know the kinds of fears, tensions, and anxieties produced in children, but they must also be free of such themselves.[3] Boykin[4] asserts that a training institution must work thoughtfully to develop a thinking teacher who can exercise sound judgment in developing his own standards of action. Every prospective teacher should possess the general information and skills and

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[1]Merle R. Sumption, Three Hundred Gifted Children. New York: World Book Company, 1941, p. 135.

[2]Florence Beaumont, Report and Recommendations on the Education of the Intellectually Gifted in New York City; Committee of the Division of Elementary Schools. Board of Education of the City of New York, 1952,p.18.

[3]Leander L. Boykin, "Priorities in the Education of Teachers," Teachers College Record, Volume 58, No. 5, February, 1957, p.258.

[4]Ibid., p. 257.

should attain the level of maturity and philosophy of life that are expected of all competent graduates of a teacher-education program. She should realize that in a changing society new problems arise and as old problems change or disappear new values must be formed.[5] It is recommended[6] that student teachers should learn how to group pupils within a class for different kinds of learning experiences and how to "individualize instruction as a continuing process of resourceful every-day adjustment based on clear objectives, comprehensive insights, and basic principles."[7] Student teachers need knowledge of guidance techniques and developmental concepts concerning gifted children.[8] Parker reported in 1954 that very few colleges and universities were actually giving teacher education in the area of giftedness. Questionnaires were sent to the deans of one or more teachers' colleges in each state and to the deans of the colleges of education in all the state universities. From the replies of eighty-four per cent of the institutions it is concluded that "the number of colleges and universities offering courses and workshops for the training of teachers for mentally advanced children is negligible."[9] Educators should adjust themselves to their professed beliefs of

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[5] Ibid., p. 258.

[6] W. Carson Ryan, Ruth Strang, and Paul Witty, "The Teacher of Gifted Children," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 126.

[7] Boykin, op. cit., p. 257.

[8] Ryan, op. cit., p. 127.

[9] Clyde Parker, "A Measured Experiment with Mentally Advanced Children," The American School Board Journal, Volume 133, No. 6, December, 1956, p. 23.

educating all the children of all the people and prepare teachers accordingly for the instruction of gifted pupils. "Talented people are needed for the job. Average teachers are not good enough... Colleges and universities must help by providing prospective teachers with the best training."[10] Teachers need education for group methods and in their own preparation they should have the experience of participating, leading, and recording in an informal group.[11] Laboratory schools should provide opportunities for the student teachers to participate with gifted children in class or group situations. Ryan and Strang point out that teachers should have such practice in order to meet the needs of gifted children for "group experiences to develop wholesome social relations and balanced personalities."[12]

Lubera[13] says that teacher-education institutions should devote some time to Terman's studies of gifted children. Dr. Reisman states[14] that "more attention should be paid to intellectual competence in particular subjects and less to training in methods." Wilson urges special education

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[10] Ibid., p. 24.

[11] Ryan, op. cit., p. 126.

[12] Ibid., p. 126.

[13] Thaddeus J. Lubera, "Address to the Thirty-seventh Annual Convention of the National Association of the Secondary School Principals at Los Angeles, February, 1953. Bulletin of the National Association of the Secondary School Principals, Volume 37, No. 194, April, 1953, p. 29.

[14] David Reisman, "The Anchor Review," School Progress, Volume XXIV, No. 6, December, 1955, p. 23.

for the teachers of gifted children:

> .... to prepare to teach gifted children they should plan at least five years college preparation and postpone most of the intensive specialization to additional years of work beyond the fifth college year.[15]

Teachers need understanding of the nature of giftedness in order that they may identify superior pupils and provide programs suited to their needs. University summer courses and seminars might be specially devoted to these problems. A large number of centers have issued guides, bulletins, or handbooks that have demonstrated their values to many teachers seeking aid in recognizing superior children and making some attempt to meet their needs. Laycock says:

> I would like therefore to make the suggestion that either the Canadian Education Association or the provincial departments of education prepare, particularly, for rural teachers, a practical booklet which would contain specific suggestions as to how to identify gifted pupils and what to do for them.[16]

Such booklets might have suggestions which would help teachers in accepting gifted pupils rather than restraining them. The gifted child needs to be accepted by the class and by the community. Teachers need guidance if they are to provide optimal conditions for superior pupils.

In-service education may be developed through institutes, workshops, staff meetings, and casual conversations with others engaged in

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[15]Frank T. Wilson, "Suggestions for Preparation of Teachers of Gifted Children," Elementary School Journal, Volume 52, No. 3, November, 1951, p. 160.

[16]Samuel R. Laycock, "The Gifted Child in the Rural School," Canadian Education, Volume X, No. 4, September, 1955, p. 82.

grouping superior children and enriching their programs.[17] In-service training needs understanding by administrators of the nature and characteristics of gifted children and an understanding of the philosophy underlying their educational program. Both teachers and administrators should appreciate the importance of parent-child relations and of community influences. Passow[18] observes that the insights, understandings, motivations, attitudes, skills and knowledge of teachers and counsellors are important for the education of the gifted as well as the general acceptance by the community of ideas pertinent to their nurture.

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[17]Ryan, op. cit., p. 129.

[18]R. Harry Passow, and others, "Planning for Talented Youth," Talented Youth Project; Publication I. Horace Mann-Lincoln Institute of School Experimentation, Teachers' College, Columbia, 1955, pp. 56-57.

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CHAPTER V

GUIDANCE AND COUNSELLING

There is widespread support for an increase in our counselling services. Ruth Strang stresses guidance as "a process of interaction in which every individual is helped, through his own efforts, to discover and develop his best potentialities for his personal happiness and social usefulness."[1] The counsellor must be an accepting, helping person who maintains a constructive relationship with the pupils and has an excellent background knowledge of the dynamics of behavior. The Baltimore Bulletin states that:

> The aim of guidance ... is to help each child achieve his own highest level of personal, educational, civic, and occupational competence. ... Guidance activities are based upon the recognition of individual differences, the basic concepts of human growth and development, the diversity of present-day educational opportunities, the complexity of modern occupational life, the importance of human relations, the right of the individual to make his own choices, and the realization that the adjustment of an individual to his life situations is an ever-changing process.[2]

The counsellor is concerned with identifying and guiding the gifted pupils, and in cooperation with parents and teachers, he plans for their best development. He may establish contact with community resources, help in curriculum arrangements, and give advice concerning college and

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[1]Ruth Strang, "Contribution of Guidance to the Field of Special Education," Reprint from Special Education for the Exceptional, Volume I, Chapter II. Edited by Merle E. Frampton and Elena D. Gall; Boston: Porter Sargent Publisher, 1955, p. 56.

[2]Leona C. Buchwald, "The Counselor's Role in Identifying and Guiding the Superior Pupil," Baltimore Bulletin of Education, Volume XXXI, No.5, June, 1954, p. 16.

vocations. The First International Workshop on Education stated that "the best service to the gifted child is one of guidance, helping him to understand himself and to accept his responsibility to make a valuable contribution to others of the wealth of his greater gifts."[3] Gifted students find it hard to choose a vocation because their interests are broad and they are able to enter almost any field.

The New York Committee[4] recommended that a Coordinator for the education of gifted children be appointed with the responsibility of organization of classes, placement of gifted children, and implementation of policies regarding their education. Another committee,[5] studying the rapid learner in the academic high schools of New York, reported that there was need for more effective guidance to aid children in improving their study techniques, prepare them for college, and motivate them to greater achievement. Graduates of the Cleveland classes, according to Sumption's study,[6] stated that there was not enough vocational guidance and that there should be more varieties of leadership developed.

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[3]Harry M. Grant, "The First International Workshop on Education," Education: A Collection of Essays on Canadian Education, Volume 2, No. 4, Toronto: W. J. Gage and Company, 1955, p. 14.

[4]Florence Beaumont, Report and Recommendations on the Education of the Intellectually Gifted in New York City; Committee of the Division of Elementary Schools, Board of Education of the City of New York, 1952, p. 17.

[5]Report of Committee on the Rapid Learner, High Points, Volume 38, No. 2, February, 1956, pp. 26-28.

[6]Merle R. Sumption, Three Hundred Gifted Children. New York: World Book Company, 1941, p. 143.

The graduates of nine high schools in Los Angeles reported[7] that there should be more guidance and counselling services and more personal interviews and earlier parent-student-counsellor meetings. Eighty per cent recommend vocational guidance in planning majors and vocational careers. Sidney Smith[8] warns that in small multi-purpose schools the gifted should not drift into vocational courses but that they should have guidance for the academic field which besides giving preparation for university also gives good mental discipline. The Hope Report[9] states that, as the occupational world has become very complex, teacher counselling is needed and that in the secondary high school it should be supplemented by the guidance of specially trained personnel.

Early identification is necessary and Freeman[10] points out that after psychological tests have been made the educational or vocational counsellor should recognize the possibility of hidden factors and should attempt to account for deficiencies or underachievement that may be apparent. The Toronto study[11] reveals the need of recognizing the personality features involved in success for any pupils, including the gifted, and that even those who seem to be achieving well need guidance

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[7]Report of the Curriculum Division of the Los Angeles City School Districts; "A Further Analysis of a Follow-up Study of 1820, June, 1948 Graduates." January, 1951, p. 16.

[8]Sidney Smith,"Brains Unlimited," Canadian Education, Volume IX, No. 3, June, 1954, p. 7.

[9]Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 97.

[10]Frank S. Freeman, Individual Differences, New York: Henry Holt and Company, 1934, p. 254.

[11]Report by the Research Committee of The Association of Heads of Guidance Departments, Toronto Secondary Schools; "A Study of Thirty-two Gifted Students of the Toronto Secondary Schools," December 8, 1955,pp.48-50.

and understanding. Lubera[12] says that good counsellors can help gifted students in the area of personal problems and social adjustment. Rex[13] and Pritchard[14] stress the value of counsellors for planning and evaluation of programs and advising gifted children who have unique guidance needs. Martens[15] refers to the maladjustment in unfavorable environment and deplores the lack of guidance. Terman and Oden stated that, "We have not learned how to bring the highest intellectual gifts to normal fruition or how to steer them clear of the dangers that threaten personality development in extreme deviates."[16] Gifted students do not like to be "different" and are often reluctant to show their abilities in order to be more like the rest of the class. Lubera[17] points out that they must adjust to their differences and, because they are more self-critical and analytical, understanding guidance is needed. The counsellor must give moral support to the child who is concerned about being "set apart." The counsellor

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[12]Thaddeus J. Lubera, "Address to the Thirty-seventh Annual Convention of the National Association of Secondary School Principals at Los Angeles," February, 1953. Bulletin of The National Association of Secondary School Principals, Volume 37, No. 194, April, 1953, p. 30.

[13]Paul Witty, "Education for Talented and for Leadership," Teachers'College Record, Volume 57, No. 5, February, 1956, p. 297.

[14]Miriam C. Pritchard, "Total School Planning for the Gifted Child," Reprint from Exceptional Children, Volume 18, January, 107-110,128; February, 143-147; March, 174-180; 1952, p. 7.

[15]Walter Barbe, "Characteristics of Gifted Children," Educational Administration and Supervision, Volume 41, April, 1955, p. 33.

[16]Pritchard, op. cit., p. 10.

[17]Lubera, op. cit., p. 30.

has the added function in schools of balancing the philosophy of different members of the staff. Teachers have important responsibilities for giving sound advice to their pupils. Brumbaugh states: "Looking into the future it appears that the emphasis in the education of intellectually gifted children and youth will be placed upon guidance and counselling after they have been identified by either old or new measurements."[18] There does not appear to be any universal technique as framework for the counselling relationship. Failor states:

> The technique should always be appropriate to the counselee's personality and desires, the nature and severity of the counselee's concerns or problems, the counsellor's personality and skill, and the administrative realities and limitations of the school or agency.[19]

The question frequently arises concerning the advisability of telling a child that he is gifted. Goddard[20] expresses the point of view that it is sometimes encouraging to tell a child but caution must be exercised as the pupil may then quit trying. It is submitted that the gifted do not always know their potentiality. If they go unchallenged and are working with an average group they have no basis of comparison and though they find the work easy they they may not realize their capacity. Many gifted youth do not finish their education. It is

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[18]Florence Brumbaugh, "Intellectually Gifted Children," Special Education for the Exceptional, Volume III. Edited by Merle E. Sumption and Elena D. Gall; Boston: Porter Sargent Publisher, 1956, p. 3.

[19]Clarence W. Failor, "Eclecticism in Counseling," The Personnel and Guidance Journal, Volume XXXI, No. 1, October, 1952, p. 14.

[20]Henry H. Goddard, School Training of Gifted Children. New York: World Book Company, 1928, p. 118.

asserted[21] that the guidance worker should be sure that children are aware of their abilities, and also that their parents should know in order that they may give encouragement toward appropriate goals. The Hope Report states that counselling should "help the child to evaluate his own capabilities and disabilities; to secure information about educational and occupational opportunities, and to make wise choices."[22]

Wilson[23] warns against trying to evaluate the child's interests because these are significant to the child and should not be discounted. He emphasizes the value of teacher education and understanding and urges that "leadership development should be afforded so that adult participation is in common with the pupils." Gilbert C. Wrenn expresses growing concern over the shortage of trained counsellors.[24] He suggests that candidates selected for such training should have appropriate personalities and be willing to take training at the graduate level. This might ensure their better understanding of the principles involved. Reference is made[25] to the increasing literature in the field, and to organizations such as The Division of Counselling and Guidance of the American Psychological Association, The National Vocational Guidance Association,

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[21]Education for Gifted Children and Youth: A Guide for Planning Programs, Bulletin No. 77, Hartford, Connecticut: State Department of Education, June, 1956, p. 33.

[22]Hope Report, op. cit., p. 97.

[23]Frank Wilson and Cyril Woolcock, "A Note on Enrichment of Education of Gifted Pupils," Educational Administration and Supervision, Volume 40, No. 8, December, 1954, p. 484.

[24]Gilbert C. Wrenn, "The Selection and Education of Student Personnel Workers," The Personnel and Guidance Journal, Volume XXXI, No. 1, October, 1952, p. 9.

[25]Ibid., pp. 13-14.

The Council of Guidance and Personnel Association, and the American College Personnel Association. Bulletins and newsletters about the values and procedures in counselling have been prepared by these organizations and by the state departments of education in California and in New York. In Alberta many counsellors belong to the American School Counsellors' Association and have held annual conferences since 1953.

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CHAPTER VI

ROLES OF THE COMMUNITY AND THE GOVERNMENT

Community Participation

Witty says[1] the gifted cannot wait until the school years to find stimulation and opportunities for exploration of their talents. The family and the community have the initial responsibility and the challenge to provide for child growth in an appropriate environment. People often deplore the lack of an organized community program. Examples of concerted efforts in some constructive project demonstrate the effectiveness of common action towards a particular goal. Community surveys might reveal the extent to which all its resources could be used for the maximal development of the citizens.[2] It should follow that gifted children would benefit from such an undertaking. For them special opportunities for creative living are largely an expression of the interests of the adults of the area. Centers are noted for special interests, such as sports, recreational facilities, libraries, cultural activities, service club work, church groups, or young people's associations. The intangible values of these organizations exert tremendous influence on the development of the gifted child. The knowledge that it has helped children to actual achievement serves to keep an organization's interest alive.[3] The members

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[1]Nicholas Hobbs, "Community Recognition of the Gifted," The Gifted Child, Edited by Paul Witty; Boston: D.C. Heath and Company, 1951, p. 170.

[2]Ibid., p. 182.

[3]Norma E. Cutts and Nicholas Moseley, Teaching the Bright and Gifted. Englewood Cliffs: Prentice-Hall, Inc., 1957, p. 77.

have a personal pride in the accomplishments of the children whom they have sponsored in some particular way.

Educators should take care that community agencies receive recognition for their efforts. If the public sponsors a choir or a band then it should have the opportunity to hear it. Fairs and Achievement Days give opportunities for bringing the public and school pupils closer together. Adults in a community may do much to encourage pupils and give them a feeling of security and group acceptance. A kindly greeting or a friendly enquiry about his studies has an immeasurable influence upon the child's attitudes. In many vicinities there are scientists, engineers, and other personnel who should be encouraged to participate in the educational and administrative activities of the school. Some person in a community may be persuaded to provide an award to the student who makes the highest standing in a subject chosen by the sponsor. Thus one person might choose mathematics and another science as his subject of interest and thus a large group of people may come to have a special concern for the scholastic achievement of the students. Pupils should be encouraged to strive for high achievement as an indication of their appreciation of the developing public interest in their efforts. Adults rejoice in the success of others and generally have a sincere interest in the plans of young people for continuing their studies. In common purpose and action the community might assume an obligation to see that a student may have a free choice of career and not have to choose some vocation other than the one he desires in order to obtain financial security.

As ratepayers in a school system the public has a vital interest

in the education of its young people and a sense of responsibility for their opportunities. The school is the one community agency most concerned with children and it is appropriate that it should take the leadership in bringing together into a coordinated program the various community agencies concerned over child welfare.[4] The Educational Policies Commission[5] recommends that "a single community board be established to administer the areas of education, recreation, and library services in the community."

Scholarships

More years of formal schooling are necessary for the gifted than for others and the cost is greater as higher levels of education are reached. Scholarships for needy high school students are desirable. Many able high school students drop their studies because of economic barriers. Conant[6] notes that many college teachers deplore the lost talent that develops from financial difficulties and adds that they fail to realize "how much good material never comes within sight of a university because of the inadequacies of many of the high schools throughout the United States." Conventions frequently conclude their sessions with a recommendation that more scholarships be established. The Edison Foundation Institute[7] urged that industry increase the number

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[4]Hobbs, op. cit., p. 183.

[5]Ibid., p. 183.

[6]James Bryant Conant, Education in A Divided World. Cambridge: Harvard University Press, 1948, p. 227.

[7]Report of the Fourth Edison Foundation Institute, West Orange, New Jersey, November, 1952.

of its scholarships. The Educational Policies Commission stated that:[8]

> It is a belief of the Commission that funds should be made available for education of the gifted in all socially-valuable fields of work to the extent that aid is required, and that in particular, the investment of funds in individuals with marked creative talent is essential wisdom for our society.

Many scholarships now established demonstrate the belief of various people and organizations in the value of financial aid to needy and able students. An increasing number of scholarships are being created in Canada and the United States but the need is very great. The literature abounds in recommendations concerning the importance of more financial assistance for gifted children as an investment in the potential benefit to the country.

State Legislation

There is increasing opinion that more general provision for the gifted must begin at the state level. The programs that have been established apply only to a small fraction of the total number of gifted children, which in the United States alone, are estimated at over half a million. MacLean[9] notes that in California there are twenty-two laws pertaining to funds, institutions, personnel, and special services for the handicapped but that there are none for the gifted. He suggests that there is discrimination against mechanical, social, clerical, and artistic forms of intelligence in the manner in which we neglect the potentialities involved. Further he states that there is discrimination against the

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[8] Manpower and Education. Report of the Educational Policies Commission National Education Association, Washington, D.C., 1956, p. 103.

[9] Malcolm S. MacLean, "Are We Discriminating against Intelligence?" Educational Leadership, Volume XII, November, 1954, pp. 85-89.

scholastically brilliant when they are forced into crowded classes under unsatisfactory conditions. It has been pointed out that only four states gave legislative approval to special classes for the gifted. In Alberta there are special grants for the operation of classrooms for handicapped and for mentally retarded children, but none for classes of gifted children.

Research needs encouragement and financial assistance at the government level in order that immediate investigation may be made concerning the nature of the gifted, the curriculum, teacher training, and administrative and educational procedures applicable to them. For areas of small enrolments consideration might be given to the establishment of residences. It is recommended that the state should give recognition to the gifted by calling attention to the need for satisfactory educational provisions for them, and that it should give legislative approval of the administrative arrangements that would be involved.

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CHAPTER VII

SUGGESTED RESEARCH

The need for research is increasingly urgent as schools strive to improve their identification, instruction and guidance of gifted students. Roeder[1] suggests that schools could make studies with a view to improving procedures for identifying able students and evaluating their efforts. The Hope Report recommends that more research workers be trained. Many commonly held opinions have been discredited by the findings of experimentation. The Research Committee of the Ontario School Inspectors' Association presented a very comprehensive brief[2] to the Hope Commission suggesting that more provision be made for research in education in areas such as individual differences, child psychology, methods of instruction, diagnostic achievement tests, and statistics. The Commission recommended that more money be made available for research. The committee conducting the Toronto Study[3] recommended that money be granted for educational research under the direction of the heads of the guidance department. Newland[4] observes that throughout a number of studies the question is raised as to what

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[1]Wesley S. Roeder, "Guidance of the Able or Gifted Student," The School Counselor, Volume 4, No. 1, November, 1956, p. 12.

[2]Research and Experimentation in Education: Brief Number 90. Presented by the Research Committee of the Ontario School Inspectors' Association to the Hope Commission, Toronto, 1955.

[3]Report of the Research Committee of the Association of Heads of Guidance Departments, Toronto Secondary Schools; "A Study of Thirty-two Gifted Students in the Toronto Secondary Schools," December 8, 1955, p. 58.

[4]Ernest T. Newland, "The Gifted," Review of Educational Research, Volume XXIII, No. 5, December, 1953, p. 427.

constitutes giftedness and he adds that, with the exception of mere recognition of emotional aspects and a trace of concern over motivation of the gifted, "fundamental research on this important area is completely lacking." He adds:[5]

> ... more analytical studies of the nature of mental superiority and creativity and the more objective identification of operant personality traits, such as tenacity, initiative, and motivational patterns could well be the most promising research area in the next decade or quarter-century.

Wilson[6] says there is need of research on the qualitative and curricular considerations concerning the idea that education of the gifted is a branch in itself. He adds that the methods of education of gifted children are different and that educators must "recognize the problem, study it, and train teachers for the task." Baker[7] notes that different methods are needed for the teaching of superior and gifted children. Freeman remarks that:

> ... enlightened psychological and educational practice must seek to furnish each child with the most optimal conditions to ensure potential development... and the earlier these optimum conditions are provided the less may be the limitations imposed by nature.[8]

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[5] Ibid., p. 428.

[6] Frank T. Wilson, "Suggestions for Preparation of Teachers of Gifted Children," Elementary School Journal, Volume 52, November, 1951, pp. 157-162.

[7] Harry J. Baker, Introduction to Exceptional Children. Revised Edition; Toronto: The Macmillan Company, 1953, p. 277.

[8] Frank S. Freeman, Individual Differences. New York: Henry Holt and Company, 1934, p. 143.

Goddard[9] says the gifted are different from other children. They are alert and "see the end from the beginning more quickly." Macomber says pupils respond to a total situation rather than to a single stimulus. Others refer to their leap and test technique in new situations. These ideas represent areas for needed research. Horn said in 1924 that:

> Highly endowed children do not do the same sort of thing as children of average intelligence more quickly and sooner; they do it differently....Differentiation over the same course of study, taking advantage of the obvious variations among children to cover the same ground at varying rates of speed is of comparatively little value.[10]

Whether gifted children differ from the normal in kind or degree is an academic question which can only be answered definitely by the accumulation of insight from sound research. Regardless of theoretical considerations, experience supports the conclusion that the markedly superior profit most from curricula and methods which are not mere elongations or abbreviations of usual classroom practice, but which are demonstrated to be more effective in the education of superior pupils. The statement of the Cleveland Committee in 1939 has pertinence today:

> In planning many of the individual programs (for educating children) little use has been made even of the meager data available concerning gifted children, and each school system which has planned a program seems to have started afresh as though no other system had worked in that field. In many instances the educational programs have been limited to an

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[9]Henry H. Goddard, School Training of Gifted Children. New York: World Book Company, 1928, p. 35.

[10]Fay Adams and Walker Brown, Teaching the Bright Pupil. New York: Henry Holt and Company, 1930, p. 58.

> attempt to raise school marks - an altogether too limited objective. Nevertheless, the committee recognizes the fact that such pioneering efforts provide helpful suggestions for a program for the education of gifted children and for that reason should be continued. Research findings in regard to the characteristics of gifted children have not been interpreted in terms of school practice. For example, studies have shown that gifted children generally have unusual drive, initiative, and broad interest, but these findings have not been translated into appropriate school practice.[11]

Investigations might be undertaken concerning the characteristics of superior children, a follow-up study of them after they enter college and also a study of their success in later life. Otto[12] suggests there is need of a more complete follow-up of gifted students to determine their status and contribution to adult life. Further study could well be given to the social outcomes of the different educational experiences of gifted children.[13] A study of the goals of social responsibility should assist in the formulation of programs for superior students.[14] It is noted that there is little research concerning the nature of giftedness in terms of qualifications for leadership or for social acceptance. A study of the nature of leadership and the qualities of the gifted might be useful and it would also indicate the nature of

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[11]Paul Witty, "The Nature and Extent of Educational Provisions for the Gifted Pupil," The Gifted Child. Edited by Paul Witty; Boston: D.C. Heath and Company, 1951, p. 208.

[12]Henry J. Otto, "Elementary Education - III - Organization and Administration," Encyclopedia of Educational Research. Revised edition. Edited by Walter S. Monroe; prepared under the auspices of the American Educational Research Association, New York: The Macmillan Company, 1950, p. 378.

[13]Newland, op. cit., p. 427.

[14]Dorothy Morris, Mary Hayslip, and Norma Noonan, "Gifted Children," Encyclopedia of Educational Research; revised edition. Edited by Walter S. Monroe; prepared under the auspices of the American Educational Research Association, New York: The Macmillan Company, 1950, p. 509.

popularity and number of friends of student officers. The Hope Report[15] states that it is hard to measure emotional and social growth of a particular child at any time but that study is required in the evaluation of normal growth and needs pertaining thereto. Research evidence concerning the nature of social growth and intelligence of individuals of different ability levels should be valuable. Steinson states:

> It is recommended that administrators should study the patterns of I.Q. changes of pupils of different intelligence levels, during school attendance. There is little information of this type available. and it is quite possible that significant I.Q. fluctuations are taking place of which administrators should be aware. It is probable that school programs will in time be at least partially evaluated on the basis of such fluctuations. The ability to handle ideas may be a better indication of a pupil's progress than his ability to memorize isolated facts. At any rate, if a number of schools were to join forces in making such a study, the results could prove valuable in designing school programs for pupils of different levels of intelligence.[16]

Raw acceleration needs careful study to ensure more confident identification of a pupil who might be given an opportunity to do the next three years of work in two. It is important to know what would be his loss and how that might be minimized. Steinson asserts that:

> More study should be given to the effects of a moderate amount of acceleration upon mentally superior pupils. School principals are opposed to acceleration on the grounds that it seriously interferes with the pupil's social and emotional development. Studies show that bright pupils, as a group, are superior to average pupils of the same age in both social and emotional

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[15] Report of the Hope Commission on Education in Ontario. Published by Baptist Johnson, Toronto, 1955, p. 84.

[16] S. W. Steinson, "They Are the Forgotten," Education: A Collection of Essays on Canadian Education, Volume I, No. 18, Toronto: W. J. Gage and Company Limited, 1956, p. 72.

characteristics....several investigators have shown that under existing conditions some degree of acceleration is definitely desirable. This suggests that the opposition to acceleration may be partly a result of the desire of principals to simplify school organization. It is this discrepancy between opinion and experimental evidence which makes it imperative that this problem be studied further. If the effects of acceleration are not as harmful as principals seem to fear, experimentation with various types of acceleration, together with especially planned enrichment, may do much to improve the school training of bright pupils.[17]

The area of enrichment offers many problems for research. Passow[18] raises a question of what is enrichment, and what kind of learning experiences should gifted children have that average children do not have. A study might also be made of the learning that is considered unnecessary for superior pupils. Investigation might concern itself about enrichment suitable to all kinds of gifted youth and that which is specific for certain interest areas. Studies regarding opportunities for growth of self-development and original expression would be beneficial. Research should aid curriculum planners to determine the manner in which the educational needs of gifted children are similar to and different from those of other students. It must point to the kinds of instructional, administrative, and guidance procedures which will best provide for the unique needs of the talented child.

There is little research evidence concerning the methods of ability grouping in practice. Homogeneous grouping has aroused much

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[17] Ibid., p. 72.

[18] A. Harry Passow, "Planning for Talented Youth: A Research Project," Educational Leadership, Volume XIII, No. 4, January, 1956, p. 254.

controversy and it is suggested that schools should conduct action research on the methods of grouping being used. Ability grouping involves predicting achievement and success in school. It is possible that such grouping based on mental tests should be concerned with developmental aspects rather than with prediction as that is complicated by many factors such as motivation, industry and perseverance, past experiences, and teaching methods. The Educational Policies Commission says:

> Evidence on the relative advantages and disadvantages of grouping gifted students in separate classes for some of their school work is still inconclusive. Well-controlled long-term experimentation to determine the value and limitations of such grouping is greatly needed.[19]

The Horace Mann-Lincoln Institute reports that research is proceeding in an elementary school in New York and one in Virginia since September, 1956, to determine the effects of ability grouping on gifted and non-gifted elementary school pupils.[20] The grouping is on the basis of intelligence test scores. The purpose is to study the effect of ability grouping patterns on the academic achievement, self-concept, social status, attitudes, and interests of pupils in the upper elementary grades. Superior pupils show high achievement scores in comparison with those of other children. It might be a useful study to develop norms of achievement for gifted pupils in homogeneous classes.

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[19] Educational Policies Commission, Education of the Gifted. National Education Association, Washington, 1950, p. 67.

[20] "The Talented Youth Project," Mimeographed Pamphlet from the Brochure of the Horace Mann-Lincoln Institute, Teachers' College, Columbia, 1955, p. 2.

Careful appraisal is needed of goal attainments in relation to the aims of school programs. Research and experimentation and testing beginning at the classroom level are necessary.

Passow[21] suggests that research might show the kind of training and experience that would best qualify an individual to teach talented students. It would be interesting to have research evidence concerning the extent to which high intelligence, special aptitudes, flexibility of standards, and broad knowledge of related fields are important in determining who should teach the talented. Investigation might indicate conclusions pertaining to in-service training of teachers. The role of the parents and of the community might be a proper subject for evaluation. Research might indicate if there is any difference between the kind of counselling given to the superior and that given to other children.[22] It might also indicate interesting conclusions as to whether there is a difference in the age of vocational decision for gifted children from that of others.[23]

Teachers and educators have commended all-round development of the child. Research might be conducted concerning the issues involved between grouping practices and modern concepts related to the well-rounded development of children. The Encyclopedia of Educational

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[21]A. Harry Passow and others, "Planning for Talented Youth," Talented Youth Project; Publication No. I. Horace Mann-Lincoln Institute of School Experimentation, Teachers' College, Columbia, 1955, p. 58.

[22]Ibid., p. 60.

[23]Ibid., p. 60.

Research[24] questions how individual differences may be met through sub-grouping within a class and how such grouping may be adjusted to curricular and promotional practices. The question is also asked concerning the relationship of development to ability to achieve peer status in the group. Other studies[25] might concern themselves with a survey of the extent and influence of peer prejudices on academic students and attempt to discover to what extent cultural, social, and intellectual factors discriminate between those who do and those who do not show prejudice. Passow[26] reports that a study is being conducted to discover the extent to which negative or positive traits are ascribed to academically superior students by their peers.

That personality factors are important in determining achievement seems clear. What these factors are and how they operate is not yet known. Nor is it known to what degree a gifted person's selection of an area of activity is determined by his personality needs. There is need of objective evaluations of areas of maturity and immaturity which seem to exist side by side in the superior individual.[27] The Hope Report mentions the need for objective measurement of personality traits.

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[24]Otto, p. 378.

[25]Passow, Educational Leadership, op. cit., p. 251.

[26]"The Talented Youth Project," Mimeographed Pamphlet, op. cit., p. 6.

[27]Encyclopedia, op. cit., p. 509.

Dr. Merville Shaw,[28] of Chico State College, speaking in December, 1956, at the meeting of the Northeastern California Guidance Association noted that recent research tends still to suggest a relationship between high level ability and certain specific personality traits. Newland says Terman's studies could well be supplemented by:

> ...another pattern of cross sectional and longitudinal studies directed at the ascertainment of the nature of the interpersonal relationships, definitely more than sociometric in nature, as regards the reactions of the gifted toward the groups in which he happens to be, as regards the reactions of his varying groups to him, and as regards the impact which his being in such groups has on the groups themselves.[29]

Past research has indicated that capacity will not guarantee the development of giftedness. Motivation and opportunity must be afforded. Study is needed concerning the factors that affect motivation.[30] Related to this is the need for understanding reasons for under-achievement by those of superior ability. Lack of motivation may not only affect school achievement but also depress performance on the usual group intelligence and achievement tests. Individual tests, however, may help identify the child's real ability. Beyond this there is need for study[31] of relatively low correlation between ability and achievement and of environmental

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[28]Merville Shaw, "Recent Research on the Gifted," California Guidance Newsletter, Volume I, No. 4, Bureau of Guidance, State Department of Education, Sacramento 14, January, 1957, p. 2.

[29]Newland, op. cit., 428.

[30]Passow, Educational Leadership, op. cit., p. 251.

[31]Encyclopedia, op. cit., p. 509.

and emotional factors which influence this correlation. Studies are needed[32] that show what helps the gifted child retain a self-directed love of learning and creating. Wallace Verburg remarks that:

> Competent educational leaders are continually challenged to experiment and explore the unknown. The education of gifted children provides a challenging opportunity to produce a fundamental, frontal area.[33]

Research and actual experiment in the classroom are needed in the quest for a solution for the proper education of gifted children.

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[32]Passow, Educational Leadership, op. cit., p. 254.

[33]Wallace A. Verburg, "Editorial: Reflections on Educating the Gifted," Educational Leadership, Volume XIII, No. 4, January, 1956, p. 208.

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CHAPTER VIII

CONCLUSIONS AND INFERENCES

A review and evaluation of current theory and practice relating to the education of the gifted might be expected to lead to certain definite conclusions. Granted that research on the subject is limited, and that the issues have been the subject of almost half a century of controversy, the reader is entitled to expect specific conclusions and recommendations to emerge from a review of the theory, practice, and research in this troubled area. Such conclusions and recommendations must result from a careful weighing of the experimental evidence, the writings of the experts in the field, and the success or failure of certain principles and procedures in classroom practice. Finally, they must be offered as tentative and guarded conclusions representing insights which are acceptable in the light of our present body of evidence, but subject to continuous revision as knowledge advances. Within the limits of this frame of reference the following conclusions, inferences and recommendations are submitted for consideration.

1. The Desirability of Special Treatment of Gifted Children. The potential contribution of the gifted is tremendous, and justifies the provision of an educational program appropriate to their abilities, interests, and needs. This is unlikely in the regular classroom.

2. Identification of Gifted Children. The gifted may most effectively be identified by multiple criteria such as individual and

group intelligence tests, measures of achievement, judgments of principals and teachers, and evidence of special areas of superiority; among these the individual intelligence test remains the most useful single instrument.

3. The Lower Limit of Giftedness. In practice the lower limit has extended from I.Q, 125 to 148. The choice is between recognition of a group of appreciable size with lower average intelligence, and a smaller and more widely dispersed group of unquestioned superiority. Practical considerations dictate a lower limit not in excess of I.Q. 130.

4. Acceleration. Since gifted learners may also be the rapid learners, moderate acceleration, not in excess of three years during the entire pre-university program, is possible where physical, social, or emotional handicaps are not in evidence. Terman advises limited acceleration in the elementary school.

5. Enrichment. Since not all gifted can be accelerated, and since their greater capacity for intellectual insight permits broader and richer learnings, deeper abstraction, and the exercise of independent and creative thought, enrichment may be practised for the superior group in the ordinary classroom, or, better, in segregated groups.

6. Segregation. The development of special classes for the gifted permits ventures into both acceleration and enrichment, and allows the utilization of methods and curricula especially suited to the interests and capacities of this group. Partial segregation

for portions of the school day may be an alternative.

7. A Point of View on Acceleration, Enrichment, and Segregation. Where enrolment, physical conditions, and community attitudes permit, partial or complete segregation, in which enrichment always occurs, and acceleration will occur when desirable, would seem to provide the best answer. Where conditions do not permit segregation, acceleration should be employed where appropriate, and, in spite of the difficulties involved, enrichment of the programs of the superior pupils should be attempted on a systematic basis.

8. Curriculum. In segregated groups and in enriched programs emphasis should be placed on increased content, greater richness of understanding, increased creative work, and more electives, such as foreign languages and biography, to meet the wider interests of superior children. Provision of a basic program for the gifted in cooperation with local educational authorities, is a continuing responsibility of provincial departments of education.

9. Method. Again, in segregated programs, it becomes possible for the teacher to encourage and participate in cooperative planning of unit activities, related to the interests of the individual or the group. These should be within the scope of the special curriculum and place a greater responsibility on the pupils than would be likely in the ordinary classroom.

10. The Teacher. Teachers of the gifted must have some claim to giftedness, as well as the capacity to participate in planning and implementation of class activities rather than to direct them.

They must receive special training in the nature and identification of gifted children and in the organization of the educative process.

11. Guidance and Counselling of the Gifted. Guidance services must provide stimulation toward academic achievement, assistance in election of appropriate courses, vocational and professional insights, and the challenge to work at a level appropriate to their capacities. Efforts should be made to develop attitudes of responsibility to society and an awareness of the need for quality and effort in the discharge of the responsibilities of the individual.

12. Organization of Community Resources. The agencies of a community must be guided toward the provision of developmental and enrichment experiences for superior children in the areas of cultural and creative arts, civic insight and participation, training for leadership in community organizations, encouragement in worthwhile hobbies and activities, and utilization of the unique local resources of historical, social, industrial, scientific, or technical significance.

13. Financial Assistance for the Gifted. Government scholarships, indicative of state recognition of responsibility for aid to the gifted, may be established to help needy superior students continue training for chosen careers.

14. Evaluation of Programs for the Gifted. Educational authorities at all levels must take responsibility for evaluation of the effectiveness of existing programs and procedures for the gifted.

CHAPTER IX

CONCLUDING STATEMENT

A review of the literature on the education of gifted children reveals that, while much has been accomplished, there is still much to be done. Better methods of identification are required and there is still a great need to arouse the public interest in the gifted. More than that there is still further need to arouse the active interest of educators in the discovery and nurture of the potent drives of the mentally superior children. Herbert Carroll says that the gifted must be educated specially:

> ... each child must receive the education best suited to his abilities and needs. To force upon all an education planned for average children, regardless of individual intellectual capacity, is to grant special privilege to the central group and to deny to the bright and to the dull their rights.[1]

New York, Cleveland, and Portland have been very active in providing for gifted children. Although Santayana[2] observed in 1947 that only four states have approved special consideration of the gifted, it is encouraging to note the increased cooperation of government commissions with those who are studying the problem. It is likely that legislative

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[1]Herbert Carroll, Genius in the Making. New York: McGraw Hill Company, Inc., 1940, p. 253.

[2]Paul Witty, "Nature and Extent of Educational Provisions for the Gifted Pupil," The Gifted Child. Edited by Paul Witty; Boston: D. C. Heath and Company, 1951, p. 199.

authorities responsible for organization and curricula of schools will soon assume a more positive leadership role. In this direction the State Department of Education in Connecticut[3] has appointed a committee to make a study of the educational needs of the gifted. As with all effective educational programs, planning for the identification and nurture of gifted children demands the best possible contribution of many minds. Passow remarks:

> That there is need for more adequate planning is unquestionable. A public school system that has met the many challenges in educating so many children is certainly able to develop the flexibility and richness needed to meet the needs of the gifted children who will provide the intellectual, artistic, technological, and moral leadership of our nation.[4]

Continued delaying in taking action until everything is known often leads to complete paralysis. Though there is much about the nature and development of superior children that is not known, there is also a great accumulation of accepted knowledge on the subject. Many research findings are receiving attention. Rather than wait for outside agencies to give definite answers some schools are undertaking evaluation of their own programs for the education of the gifted children in their systems. Reports are being issued concerning some of the programs that have been described in this survey. It is hoped that readers will be stimulated to develop hypotheses and sharpen issues which arise when attempts are made to educate children of high intelligence.

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[3]John Hersey, "Connecticut's Committee for the Gifted," Educational Leadership, Volume XIII, No. 4, January, 1956, p. 230.

[4]A. Harry Passow, "Are We Short-Changing the Gifted?" School Executive, December, 1955, p. 57.

The literature seems to give a moderate endorsation to ability grouping although there does not appear to be conclusive evidence regarding the best grade level at which to do the grouping. The chief criterion for such grouping is mental ability, and the school thus assumes the responsibility for motivation and the discrepancies between the child's ability to learn and his actual learnings. Segregation for special classes has found favor although complete isolation is avoided in most schools. The majority of state systems do not provide for special classes. Acceleration is not accepted as a general policy although some moderate acceleration is approved if care is exercised regarding the physical, social, and mental characteristics of the child. Excessive mechanical acceleration will eventually create grave problems both from an administrative and from an educational standpoint. Enrichment is the alternative and that involves qualitative activities providing for the development of essential skills and understandings and offering exercises that challenge interest and ability. Moderate acceleration and suitable enrichment need to be combined in some form of homogeneous grouping to conform with majority opinion. It may be concluded that many teachers do not feel adequately trained or able to meet the demands of this situation. Much planning is necessary and the stress on preparation is important.

While training and experience in social living has its place in the education of the gifted, in critical times trained manpower is an urgent necessity and trained scientists and engineers cannot be produced by the institution of emergency legislation. They can only be produced over a period of years by cooperation of all the resources of a nation

in a planned program for interesting, stimulating, and training the most able young people. Numerous writers indicate the seriousness of the growing manpower shortage. Pintner has stated that:

> Educators at all levels of instruction must divest themselves of the belief that gifted students can get along by themselves and that it is undemocratic to offer them educational opportunities suited to their particular needs. We must dispel also the fear sometimes expressed that the gifted may become selfish through special consideration, for it is precisely this group of individuals of great ability who, in the long run, and as a group, will be the least selfish, and the least likely to monopolize the good things in this world, and by their inventions and discoveries, by their creative work in the arts, by their contributions to government and to social reforms, by their activities in all fields, will in the future help humanity in its groping struggle upward towards a better civilization.[5]

Matta Akrawi,[6] Deputy Director of Unesco's Department of Education states that we are in need of new prophets and teachers for education in a new concept of world living. Closer world unity must be established through education. Ably trained people are needed whose expanded horizons will augment their knowledge and attitudes to act in international cooperation for the welfare of humanity. The education of children of high intelligence is a challenge to all who realize society's need of capitalizing upon all available ability as a means of furthering social improvement. James Conant, president of Harvard University writes:

> I wish some organization identified in the public mind with concern for all American youth would take some dramatic action to demonstrate a vigorous interest in the gifted boy or girl. This would serve as an

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[5]Rudolph Pintner, "Superior Ability," Teachers' College Record, Volume 42, February, 1941, p. 419.

[6]Matta Akrawa, "The Challenge of a Divided World to American Education," Teachers' College Record, Volume 57, No. 5, February, 1956, p. 276.

> encouragement to all teachers. The schools would be stimulated in a direction which in some quarters has been rather spurned as being undemocratic and old-fashioned. A National Commission for the Identification of Talented Youth has been suggested by one group of educators; the sponsoring of this by public school administrators and teachers would be the sort of thing I have in mind.[7]

Heck concludes his remarks on the gifted with the statement that:

> We need adequate psychological help to discover the gifted; we need special classes; we need state aid to encourage local districts to give attention to the gifted; we need a state department to help local districts solve their problems in organizing to educate the gifted; and we need to provide scholarships for all youths who are gifted and who are economically unable to continue their schooling.[8]

Though it is not apparent what final programs may emerge, it is imperative that society display greater concern for the gifted and make immediate provision for the fuller development of their potentiality.

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[7]James Bryant Conant, Education in a Divided World. Cambridge: Harvard University Press, 1948, p. 228.

[8]Arch O. Heck, The Education of Exceptional Children. New York: McGraw-Hill Company, 1953, p. 405.

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